

Modelling the occurrence of anomalous chemical diffusion in natural porous media: Supporting information

Ashish Rajyaguru^{*†,‡}, Ralf Metzler^{‡,§}, Andrey Cherstvy[‡], and Brian Berkowitz[‡]

[†] Paul Scherrer Institut, 5232 Villigen, Switzerland

[‡] Institute for Physics & Astronomy, University of Potsdam, 14476 Potsdam, Germany

[§] Asia Pacific Centre for Theoretical Physics, Pohang 37673, Republic of Korea

[‡] Department of Earth and Planetary Sciences, Weizmann Institute of Science, Rehovot 7610001, Israel

corresponding author: ashish.rajyaguru90@gmail.com

Contents

1	Time Kernels	1
2	Full anomalous diffusion solutions for selected β values	3
3	Flux solutions	15
4	The stability terms	25

1. Time Kernels

The time-kernel $\mathcal{E}_\beta$ can be mathematically represented as:

$$\mathcal{E}_\beta = \frac{1}{s} \sum_{n=0}^{\infty} \frac{(-1)^n}{n! \Gamma(1 - \beta - \beta n)} \left(\frac{s}{\kappa_\beta t^\beta} \right)^{1+n} \quad (\text{K-1})$$

In the main manuscript, $\mathcal{E}_\beta$ for $\beta=1/2$ was introduced in eqn (7) respectively. Here we present the series form of other seven $\mathcal{E}_\beta$ s for $\beta = \frac{4}{5}, \frac{3}{4}, \frac{2}{3}, \frac{2}{5}, \frac{1}{3}, \frac{1}{5}$, and $\frac{1}{9}$ in eqn (S-1) to eqn (S7) respectively.

$$\mathcal{E}_{\frac{4}{5}}(s, t) = \frac{1}{(D_{\beta}t)^{4/5}} \left(\frac{{}_3F_3 \left(\frac{9}{20}, \frac{7}{10}, \frac{19}{20}; \frac{2}{5}, \frac{3}{5}, \frac{4}{5}; -\frac{256s^5}{3125(D_{\beta}t)^4} \right)}{\Gamma\left(\frac{1}{5}\right)} - \frac{s {}_3F_3 \left(\frac{13}{20}, \frac{9}{10}, \frac{23}{20}; \frac{3}{5}, \frac{4}{5}, \frac{6}{5}; -\frac{256s^5}{3125(D_{\beta}t)^4} \right)}{(D_{\beta}t)^{4/5} \Gamma\left(-\frac{3}{5}\right)} + \frac{s^3 {}_3F_3 \left(\frac{21}{20}, \frac{13}{10}, \frac{31}{20}; \frac{6}{5}, \frac{7}{5}, \frac{8}{5}; -\frac{256s^5}{3125(D_{\beta}t)^4} \right)}{6(D_{\beta}t)^{12/5} \Gamma\left(-\frac{11}{5}\right)} \right) \quad (\text{S-1})$$

$$\mathcal{E}_{\frac{3}{4}}(s, t) = \frac{1}{(D_{\beta}t)^{3/4}} \left(\frac{{}_2F_2 \left(\frac{7}{12}, \frac{11}{12}; \frac{1}{2}, \frac{3}{4}; -\frac{27s^4}{256(D_{\beta}t)^3} \right)}{\Gamma\left(\frac{1}{4}\right)} + \frac{s {}_2F_2 \left(\frac{5}{6}, \frac{7}{6}; \frac{3}{4}, \frac{5}{4}; -\frac{27s^4}{256(D_{\beta}t)^3} \right)}{2\sqrt{\pi}(D_{\beta}t)^{3/4}} + \frac{s^2 {}_2F_2 \left(\frac{13}{12}, \frac{17}{12}; \frac{5}{4}, \frac{3}{2}; -\frac{27s^4}{256(D_{\beta}t)^3} \right)}{2(D_{\beta}t)^{3/2} \Gamma\left(-\frac{5}{4}\right)} \right) \quad (\text{S-2})$$

$$\mathcal{E}_{\frac{2}{3}}(s, t) = \frac{e^{-\frac{2s^3}{27(D_{\beta}t)^2}} \left(\frac{2\sqrt{3}s^9 \text{Ai}\left(\frac{s^2}{3\sqrt[3]{3}(D_{\beta}t)^{4/3}}\right)}{(D_{\beta}t)^{2/3}} - 6\sqrt[6]{3}s^8 \text{Ai}'\left(\frac{s^2}{3\sqrt[3]{3}(D_{\beta}t)^{4/3}}\right) \right)}{(2\sqrt[5]{3}s^8)(D_{\beta}t)^{2/3}} \quad (\text{S-3})$$

$$\mathcal{E}_{\frac{2}{5}}(s, t) = \frac{1}{(D_{\beta}t)^{2/5}} \left(\frac{{}_1F_3 \left(\frac{7}{10}; \frac{2}{5}, \frac{3}{5}, \frac{4}{5}; -\frac{4s^5}{3125(D_{\beta}t)^2} \right)}{\Gamma\left(\frac{3}{5}\right)} - \frac{s {}_1F_3 \left(\frac{9}{10}; \frac{3}{5}, \frac{4}{5}, \frac{6}{5}; -\frac{4s^5}{3125(D_{\beta}t)^2} \right)}{(D_{\beta}t)^{2/5} \Gamma\left(\frac{1}{5}\right)} + \frac{s^2 {}_1F_3 \left(\frac{11}{10}; \frac{4}{5}, \frac{6}{5}, \frac{7}{5}; -\frac{4s^5}{3125(D_{\beta}t)^2} \right)}{2(D_{\beta}t)^{4/5} \Gamma\left(-\frac{1}{5}\right)} - \frac{s^3 {}_1F_3 \left(\frac{13}{10}; \frac{6}{5}, \frac{7}{5}, \frac{8}{5}; -\frac{4s^5}{3125(D_{\beta}t)^2} \right)}{6(D_{\beta}t)^{6/5} \Gamma\left(-\frac{3}{5}\right)} \right) \quad (\text{S-4})$$

$$\mathcal{E}_{\frac{1}{3}}(s, t) = \frac{3^{2/3} \text{Ai}\left(\frac{s}{\sqrt[3]{3}\sqrt[3]{D_{\beta}t}}\right)}{\sqrt[3]{D_{\beta}t}} \quad (\text{S-5})$$

$$\mathcal{E}_{\frac{1}{5}}(s, t) = \frac{1}{(D_{\beta}t)^{1/5}} \left(\frac{{}_0F_3 \left(; \frac{2}{5}, \frac{3}{5}, \frac{4}{5}; \frac{s^5}{3125(D_{\beta}t)} \right)}{\Gamma \left(\frac{4}{5} \right)} - \frac{s {}_0F_3 \left(; \frac{3}{5}, \frac{4}{5}, \frac{6}{5}; \frac{s^5}{3125(D_{\beta}t)} \right)}{\sqrt[5]{(D_{\beta}t)} \Gamma \left(\frac{3}{5} \right)} + \frac{s^2 {}_0F_3 \left(; \frac{4}{5}, \frac{6}{5}, \frac{7}{5}; \frac{s^5}{3125(D_{\beta}t)} \right)}{2(D_{\beta}t)^{2/5} \Gamma \left(\frac{2}{5} \right)} - \frac{s^3 {}_0F_3 \left(; \frac{6}{5}, \frac{7}{5}, \frac{8}{5}; \frac{s^5}{3125(D_{\beta}t)} \right)}{6(D_{\beta}t)^{3/5} \Gamma \left(\frac{1}{5} \right)} \right) \quad (\text{S-6})$$

$$\mathcal{E}_{\frac{1}{9}}(s, t) = \frac{1}{(D_{\beta}t)^{1/9}} \left(\frac{{}_0F_7 \left(; \frac{2}{9}, \frac{1}{3}, \frac{4}{9}, \frac{5}{9}, \frac{2}{3}, \frac{7}{9}, \frac{8}{9}; \frac{s^9}{387420489(D_{\beta}t)} \right)}{\Gamma \left(\frac{8}{9} \right)} - \frac{s {}_0F_7 \left(; \frac{1}{3}, \frac{4}{9}, \frac{5}{9}, \frac{2}{3}, \frac{7}{9}, \frac{8}{9}, \frac{10}{9}; \frac{s^9}{387420489(D_{\beta}t)} \right)}{\sqrt[9]{(D_{\beta}t)} \Gamma \left(\frac{7}{9} \right)} + \frac{s^2 {}_0F_7 \left(; \frac{4}{9}, \frac{5}{9}, \frac{2}{3}, \frac{7}{9}, \frac{8}{9}, \frac{10}{9}, \frac{11}{9}; \frac{s^9}{387420489(D_{\beta}t)} \right)}{2(D_{\beta}t)^{2/9} \Gamma \left(\frac{2}{3} \right)} - \frac{s^3 {}_0F_7 \left(; \frac{5}{9}, \frac{2}{3}, \frac{7}{9}, \frac{8}{9}, \frac{10}{9}, \frac{11}{9}, \frac{4}{3}; \frac{s^9}{387420489(D_{\beta}t)} \right)}{6\sqrt[3]{(D_{\beta}t)} \Gamma \left(\frac{5}{9} \right)} + \frac{s^4 {}_0F_7 \left(; \frac{2}{3}, \frac{7}{9}, \frac{8}{9}, \frac{10}{9}, \frac{11}{9}, \frac{4}{3}, \frac{13}{9}; \frac{s^9}{387420489(D_{\beta}t)} \right)}{24(D_{\beta}t)^{4/9} \Gamma \left(\frac{4}{9} \right)} - \frac{s^5 {}_0F_7 \left(; \frac{7}{9}, \frac{8}{9}, \frac{10}{9}, \frac{11}{9}, \frac{4}{3}, \frac{13}{9}, \frac{14}{9}; \frac{s^9}{387420489(D_{\beta}t)} \right)}{120(D_{\beta}t)^{5/9} \Gamma \left(\frac{1}{3} \right)} + \frac{s^6 {}_0F_7 \left(; \frac{8}{9}, \frac{10}{9}, \frac{11}{9}, \frac{4}{3}, \frac{13}{9}, \frac{14}{9}, \frac{5}{3}; \frac{s^9}{387420489(D_{\beta}t)} \right)}{720(D_{\beta}t)^{2/3} \Gamma \left(\frac{2}{9} \right)} - \frac{s^7 {}_0F_7 \left(; \frac{10}{9}, \frac{11}{9}, \frac{4}{3}, \frac{13}{9}, \frac{14}{9}, \frac{5}{3}, \frac{16}{9}; \frac{s^9}{387420489(D_{\beta}t)} \right)}{5040(D_{\beta}t)^{7/9} \Gamma \left(\frac{1}{9} \right)} \right) \quad (\text{S-7})$$

2. Full anomalous diffusion solutions for selected β values

We present the solution to the probability density function (PDF) for the selected eight β values. Mathematically, the sub-ordination integration is represented as: $P(x, t) = \int_0^\infty \mathcal{E}_{\beta}(s, t) P_1(x, s) ds$. Here, i.e., $P(x, t) = \frac{1}{\sqrt{4\pi K_1 t}} \exp \left(-\frac{x^2}{4K_1 t} \right)$ is the Gaussian

PDF introduced as eqn (2) in the main manuscript, and $\mathcal{E}_\beta$ is the time kernel for eight β values represented as eqn (7) in the main manuscript and as eqn (S-1) to eqn (S-7) in current supporting information respectively.

A.1: Using subordination integration between eqn (S-1) and the Gaussian, the PDF for $\beta = \frac{4}{5}$ is as follows:

$$\begin{aligned}
P(x, t) = & \frac{1}{t^{4/5}} \left(-\frac{1}{2\sqrt{\pi}t^{4/5}\Gamma(-\frac{3}{5})} \times \right. \\
& \left(-\frac{25(\sqrt{5}-5)t^{6/5}\Gamma(\frac{7}{5})^2 {}_2F_7\left(\frac{7}{20}, \frac{17}{20}, \frac{1}{5}, \frac{3}{10}, \frac{2}{5}, \frac{1}{2}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}; \frac{x^{10}}{39062500t^4}\right)}{6(\sqrt{5}-1)\sqrt{2(\sqrt{5}+5)}\pi} + \right. \\
& \frac{4\sqrt{\frac{2(\sqrt{5}+5)}{\pi}}t^{2/5}x^2\Gamma(-\frac{8}{5})\Gamma(\frac{6}{5}) {}_2F_7\left(\frac{11}{20}, \frac{21}{20}, \frac{2}{5}, \frac{1}{2}, \frac{3}{5}, \frac{7}{10}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}; \frac{x^{10}}{39062500t^4}\right)}{25-25\sqrt{5}} + \\
& \frac{\sqrt{\frac{(5-\sqrt{5})\pi}{\sqrt{5}+5}}|x|^3 {}_2F_7\left(\frac{13}{20}, \frac{23}{20}, \frac{1}{2}, \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}; \frac{x^{10}}{39062500t^4}\right)}{3(\sqrt{5}-1)} + \\
& \frac{x^6\Gamma(\frac{7}{10}) {}_2F_7\left(\frac{19}{20}, \frac{29}{20}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{8}{5}; \frac{x^{10}}{39062500t^4}\right)}{750 \cdot 2^{3/5}t^{6/5}} - \\
& \frac{13\sqrt{\pi}x^8 {}_2F_7\left(\frac{23}{20}, \frac{33}{20}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{3}{2}, \frac{8}{5}, \frac{17}{10}, \frac{9}{5}; \frac{x^{10}}{39062500t^4}\right)}{630000t^2} + \\
& \left. \frac{x^4\Gamma(-\frac{3}{5}) {}_3F_8\left(\frac{3}{4}, 1, \frac{5}{4}, \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}; \frac{x^{10}}{39062500t^4}\right)}{6(\sqrt{5}-1)\sqrt{10(5-\sqrt{5})}\pi t^{2/5}} \right) + \\
& \frac{1}{2\sqrt{\pi}\Gamma(\frac{1}{5})} \times \\
& \left(-\frac{9t^{2/5}\Gamma(-\frac{9}{10}) {}_2F_7\left(\frac{7}{20}, \frac{17}{20}, \frac{1}{5}, \frac{3}{10}, \frac{2}{5}, \frac{1}{2}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}; \frac{x^{10}}{39062500t^4}\right)}{25 \cdot 2^{4/5}} - \right. \\
& \sqrt{\pi}|x| {}_2F_7\left(\frac{9}{20}, \frac{19}{20}, \frac{3}{10}, \frac{2}{5}, \frac{1}{2}, \frac{3}{5}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}; \frac{x^{10}}{39062500t^4}\right) + \\
& \frac{2\sqrt{5}\pi x^2\Gamma(\frac{6}{5}) {}_2F_7\left(\frac{11}{20}, \frac{21}{20}, \frac{2}{5}, \frac{1}{2}, \frac{3}{5}, \frac{7}{10}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}; \frac{x^{10}}{39062500t^4}\right)}{(\sqrt{5}-5)t^{2/5}\Gamma(-\frac{1}{5})} + \\
& \frac{\sqrt{\pi}x^6 {}_2F_7\left(\frac{19}{20}, \frac{29}{20}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{8}{5}; \frac{x^{10}}{39062500t^4}\right)}{2500t^2} - \\
& \frac{13(\sqrt{5}-1)x^8\Gamma(\frac{3}{10}) {}_2F_7\left(\frac{23}{20}, \frac{33}{20}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{3}{2}, \frac{8}{5}, \frac{17}{10}, \frac{9}{5}; \frac{x^{10}}{39062500t^4}\right)}{1050000 \cdot 2^{2/5}t^{14/5}} + \\
& \frac{1}{32917500000t^{14/5}\Gamma(-\frac{11}{5})\Gamma(\frac{21}{5})} \left(-10533600000(\sqrt{5}-1)t^{16/5}\Gamma(\frac{2}{5}) \times \right. \\
& {}_2F_7\left(\frac{7}{20}, \frac{17}{20}, \frac{1}{5}, \frac{3}{10}, \frac{2}{5}, \frac{1}{2}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}; \frac{x^{10}}{39062500t^4}\right) + \\
& 623437500t^{12/5}x^2\Gamma(\frac{21}{5}) {}_2F_7\left(\frac{11}{20}, \frac{21}{20}, \frac{2}{5}, \frac{1}{2}, \frac{3}{5}, \frac{7}{10}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}; \frac{x^{10}}{39062500t^4}\right) + \\
& 1375000(\sqrt{5}+1)t^{4/5}x^6\Gamma(\frac{24}{5}) \times \\
& \left. {}_2F_7\left(\frac{19}{20}, \frac{29}{20}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{8}{5}; \frac{x^{10}}{39062500t^4}\right) - \right.
\end{aligned}$$

$$\begin{aligned}
& 3265625t^{2/5}x^6\Gamma\left(\frac{21}{5}\right)|x|{}_2F_7\left(\frac{21}{20}, \frac{31}{20}; \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{7}{5}, \frac{3}{2}, \frac{8}{5}, \frac{17}{10}; \frac{x^{10}}{39062500t^4}\right) - \\
& 20064x^4\left(13\left(\sqrt{5}+1\right)x^4\Gamma\left(-\frac{2}{5}\right) \times \right. \\
& {}_2F_7\left(\frac{23}{20}, \frac{33}{20}; \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{3}{2}, \frac{8}{5}, \frac{17}{10}, \frac{9}{5}; \frac{x^{10}}{39062500t^4}\right) + \\
& \left. 21875\left(\sqrt{5}-1\right)t^{8/5}{}_3F_8\left(\frac{3}{4}, 1, \frac{5}{4}, \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}; \frac{x^{10}}{39062500t^4}\right)\right) - \\
& \frac{1}{6703200(\sqrt{5}-1)(\sqrt{5}+5)^{5/2}\pi t^{14/5}\Gamma(-\frac{7}{5})}\sqrt{5}+1\left(-23940000\sqrt{\sqrt{5}+5}\pi t^{16/5} \times \right. \\
& {}_2F_7\left(\frac{7}{20}, \frac{17}{20}; \frac{1}{5}, \frac{3}{10}, \frac{2}{5}, \frac{1}{2}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}; \frac{x^{10}}{39062500t^4}\right) + \\
& 2493750\sqrt{10}t^{12/5}x^2\Gamma\left(\frac{1}{5}\right)\Gamma\left(\frac{13}{5}\right){}_2F_7\left(\frac{11}{20}, \frac{21}{20}; \frac{2}{5}, \frac{1}{2}, \frac{3}{5}, \frac{7}{10}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}; \frac{x^{10}}{39062500t^4}\right) + \\
& x^4\left(558600\sqrt{\sqrt{5}+5}\pi t^{6/5}|x|{}_2F_7\left(\frac{17}{20}, \frac{27}{20}; \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}; \frac{x^{10}}{39062500t^4}\right) + \right. \\
& 625\sqrt{2}\left(3\sqrt{5}+5\right)t^{4/5}x^2\Gamma\left(-\frac{2}{5}\right)\Gamma\left(\frac{24}{5}\right){}_2F_7\left(\frac{19}{20}, \frac{29}{20}; \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{8}{5}; \frac{x^{10}}{39062500t^4}\right) + \\
& 114\Gamma\left(\frac{3}{5}\right)\left(13\sqrt{10}x^4\Gamma\left(\frac{3}{5}\right){}_2F_7\left(\frac{23}{20}, \frac{33}{20}; \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{3}{2}, \frac{8}{5}, \frac{17}{10}, \frac{9}{5}; \frac{x^{10}}{39062500t^4}\right) - \right. \\
& \left. 4375\sqrt{\sqrt{5}+3}\left(\sqrt{5}+5\right)t^{8/5}{}_3F_8\left(\frac{3}{4}, 1, \frac{5}{4}, \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}; \frac{x^{10}}{39062500t^4}\right)\right)\right)
\end{aligned}$$

A.2: Using subordination integration between eqn (S-2) and the Gaussian, the PDF for

$\beta = \frac{3}{4}$ is as follows:

$$\begin{aligned}
& P(x, t) = \left(2^{3/4}t^{9/8}\Gamma\left(\frac{3}{8}\right)\Gamma\left(\frac{11}{24}\right)\Gamma\left(\frac{19}{24}\right)\Gamma\left(\frac{5}{4}\right) \times \right. \\
& \left. \frac{{}_2F_6\left(\frac{11}{24}, \frac{19}{24}, \frac{1}{4}, \frac{3}{8}, \frac{1}{2}, \frac{5}{8}, \frac{3}{4}, \frac{7}{8}; -\frac{27x^8}{16777216t^3}\right)}{\sqrt[8]{3}\pi^{3/2}} - \right. \\
& \frac{4\sqrt{2}3^{5/8}t^{3/8}x^2\Gamma\left(\frac{17}{24}\right)\Gamma\left(\frac{3}{4}\right)\Gamma\left(\frac{25}{24}\right)\Gamma\left(\frac{9}{8}\right){}_2F_6\left(\frac{17}{24}, \frac{25}{24}, \frac{1}{2}, \frac{5}{8}, \frac{3}{4}, \frac{7}{8}, \frac{9}{4}, \frac{5}{4}; -\frac{27x^8}{16777216t^3}\right)}{\pi^{3/2}} + \\
& \frac{1}{6}\sqrt{\pi}|x|^3{}_2F_6\left(\frac{5}{6}, \frac{7}{6}, \frac{5}{8}, \frac{3}{4}, \frac{7}{8}, \frac{9}{8}, \frac{5}{4}, \frac{11}{8}; -\frac{27x^8}{16777216t^3}\right) - \\
& \frac{3^{3/8}x^4\Gamma\left(\frac{23}{24}\right)\Gamma\left(\frac{31}{24}\right){}_2F_6\left(\frac{23}{24}, \frac{31}{24}, \frac{3}{4}, \frac{7}{8}, \frac{5}{8}, \frac{11}{8}, \frac{3}{2}; -\frac{27x^8}{16777216t^3}\right)}{8\sqrt{2}t^{3/8}\Gamma\left(\frac{3}{8}\right)} + \\
& \left. \frac{\sqrt[8]{3}x^6\Gamma\left(\frac{29}{24}\right)\Gamma\left(\frac{37}{24}\right){}_2F_6\left(\frac{29}{24}, \frac{37}{24}, \frac{9}{8}, \frac{5}{4}, \frac{11}{8}, \frac{3}{2}, \frac{13}{8}, \frac{7}{4}; -\frac{27x^8}{16777216t^3}\right)}{640\sqrt{2}t^{9/8}\Gamma\left(\frac{9}{8}\right)}\right) + \\
& \frac{1}{4\sqrt{\pi}t\Gamma\left(-\frac{5}{4}\right)} \times \\
& \left(\frac{\sqrt[8]{3}t^{11/8}\Gamma\left(-\frac{3}{4}\right)^2\Gamma\left(\frac{3}{8}\right)\Gamma\left(\frac{11}{24}\right)\Gamma\left(\frac{19}{24}\right){}_2F_6\left(\frac{11}{24}, \frac{19}{24}, \frac{1}{4}, \frac{3}{8}, \frac{1}{2}, \frac{5}{8}, \frac{3}{4}, \frac{7}{8}; -\frac{27x^8}{16777216t^3}\right)}{16 \cdot 2^{3/4}\pi\Gamma\left(\frac{13}{12}\right)\Gamma\left(\frac{17}{12}\right)} + \right. \\
& \frac{\sqrt{\pi}x^2}{55440t^{7/8}} \\
& \left(-\frac{6930 \cdot 3^{5/8}t^{3/4}x^2\Gamma\left(-\frac{3}{4}\right)\Gamma\left(\frac{23}{24}\right)\Gamma\left(\frac{31}{24}\right){}_2F_6\left(\frac{23}{24}, \frac{31}{24}, \frac{3}{4}, \frac{7}{8}, \frac{5}{8}, \frac{11}{8}, \frac{3}{2}; -\frac{27x^8}{16777216t^3}\right)}{\Gamma\left(\frac{1}{12}\right)\Gamma\left(\frac{3}{8}\right)\Gamma\left(\frac{17}{12}\right)} - \right. \\
& \left. \frac{1001 \cdot 4\sqrt{2}3^{3/8}\pi^{3/2}x^4\cos\left(\frac{\pi}{8}\right){}_2F_6\left(\frac{29}{24}, \frac{37}{24}, \frac{9}{8}, \frac{5}{4}, \frac{11}{8}, \frac{3}{2}, \frac{13}{8}, \frac{7}{4}; -\frac{27x^8}{16777216t^3}\right)}{\Gamma\left(\frac{1}{24}\right)\Gamma\left(\frac{3}{8}\right)\Gamma\left(\frac{17}{24}\right)}\right) +
\end{aligned}$$

$$\begin{aligned}
& \frac{1728\sqrt{23}^{7/8}t^{3/2}\sin\left(\frac{\pi}{8}\right)\Gamma\left(-\frac{3}{4}\right)\Gamma\left(\frac{3}{8}\right){}_2F_6\left(\frac{17}{24},\frac{25}{24},\frac{1}{2},\frac{5}{8},\frac{3}{4},\frac{7}{8},\frac{9}{8},\frac{5}{4};-\frac{27x^8}{16777216t^3}\right)}{\Gamma\left(-\frac{35}{24}\right)\Gamma\left(\frac{29}{24}\right)}\Bigg)\Bigg)+ \\
& \frac{1}{2\sqrt{\pi}\Gamma\left(\frac{1}{4}\right)}\times \\
& \left(\frac{2\sqrt{\pi}t^{3/8}\csc\left(\frac{\pi}{8}\right)\Gamma\left(\frac{3}{4}\right)\Gamma\left(\frac{9}{8}\right){}_2F_6\left(\frac{11}{24},\frac{19}{24},\frac{1}{4},\frac{3}{8},\frac{1}{2},\frac{5}{8},\frac{3}{4},\frac{7}{8};-\frac{27x^8}{16777216t^3}\right)}{3^{3/8}\Gamma\left(\frac{7}{24}\right)\Gamma\left(\frac{23}{24}\right)}-\right. \\
& \sqrt{\pi}\sqrt{x^2}{}_2F_6\left(\frac{7}{12},\frac{11}{12},\frac{3}{8},\frac{1}{2},\frac{5}{8},\frac{3}{4},\frac{7}{8},\frac{9}{8};-\frac{27x^8}{16777216t^3}\right)+ \\
& \frac{1}{294912\pi t^{15/8}\Gamma\left(\frac{11}{24}\right)\Gamma\left(\frac{7}{12}\right)\Gamma\left(\frac{11}{12}\right)\Gamma\left(\frac{9}{8}\right)}\times \\
& \left(14400\ 2^{3/4}3^{3/8}t^{3/2}x^2\Gamma\left(-\frac{5}{4}\right)^2\Gamma\left(\frac{11}{24}\right)\Gamma\left(\frac{17}{24}\right)\Gamma\left(\frac{25}{24}\right)\Gamma\left(\frac{9}{8}\right)^2\times\right. \\
& {}_2F_6\left(\frac{17}{24},\frac{25}{24},\frac{1}{2},\frac{5}{8},\frac{3}{4},\frac{7}{8},\frac{9}{8},\frac{5}{4};-\frac{27x^8}{16777216t^3}\right)+ \\
& \sqrt[8]{3}\pi^{5/2}x^4\left(13\ 3^{3/4}x^2\Gamma\left(-\frac{5}{4}\right)\Gamma\left(\frac{29}{24}\right)\times\right. \\
& \sec\left(\frac{\pi}{24}\right){}_2F_6\left(\frac{29}{24},\frac{37}{24},\frac{9}{8},\frac{5}{4},\frac{11}{8},\frac{3}{2},\frac{13}{8},\frac{7}{4};-\frac{27x^8}{16777216t^3}\right)- \\
& \left.4608\sqrt[3]{2}t^{3/4}\sin\left(\frac{\pi}{8}\right)\Gamma\left(\frac{11}{12}\right)\Gamma\left(\frac{31}{24}\right){}_2F_6\left(\frac{23}{24},\frac{31}{24},\frac{3}{4},\frac{7}{8},\frac{9}{8},\frac{5}{4},\frac{11}{8},\frac{3}{2};-\frac{27x^8}{16777216t^3}\right)\right)\Bigg)\Bigg)\Bigg)\Bigg)\Bigg)
\end{aligned}$$

A.3: Using subordination integration between eqn (S-3) and the Gaussian, the PDF for $\beta = \frac{2}{3}$ is as follows:

$$\begin{aligned}
& P(x, t) = \frac{e^{-\frac{2}{27t^2}}}{58047528960\pi^{3/2}t^{11/3}}\times \\
& \frac{87071293440\sqrt{2}\pi t^{10/3}\Gamma\left(\frac{13}{12}\right){}_0F_7\left(\frac{1}{6},\frac{1}{4},\frac{1}{3},\frac{1}{2},\frac{2}{3},\frac{5}{6},\frac{11}{12};\frac{x^{12}}{139314069504t^4}\right)}{\Gamma\left(\frac{1}{4}\right)}- \\
& 81920\sqrt{3}\pi\sqrt[3]{t}|x|\times \\
& \left(177147t^{8/3}\Gamma\left(\frac{2}{3}\right){}_0F_7\left(\frac{1}{4},\frac{1}{3},\frac{5}{12},\frac{7}{12},\frac{3}{4},\frac{11}{12},\frac{13}{12};\frac{x^{12}}{139314069504t^4}\right)+\right. \\
& 11x^8\Gamma\left(-\frac{14}{3}\right){}_0F_7\left(\frac{11}{12},\frac{13}{12},\frac{5}{4},\frac{17}{12},\frac{19}{12},\frac{5}{3},\frac{7}{4};\frac{x^{12}}{139314069504t^4}\right)\Bigg)- \\
& 243x^2\times \\
& \left(12441600t^{8/3}\Gamma\left(-\frac{5}{12}\right)\Gamma\left(\frac{11}{12}\right){}_0F_7\left(\frac{1}{3},\frac{5}{12},\frac{1}{2},\frac{2}{3},\frac{5}{6},\frac{13}{12},\frac{7}{6};\frac{x^{12}}{139314069504t^4}\right)-\right. \\
& 3680t^2x^2\Gamma\left(-\frac{1}{4}\right)\Gamma\left(\frac{5}{12}\right){}_0F_7\left(\frac{1}{2},\frac{7}{12},\frac{2}{3},\frac{5}{6},\frac{7}{6},\frac{5}{4},\frac{4}{3};\frac{x^{12}}{139314069504t^4}\right)+ \\
& 2880t^{4/3}x^4\Gamma\left(-\frac{5}{12}\right)\Gamma\left(\frac{1}{4}\right){}_0F_7\left(\frac{2}{3},\frac{3}{4},\frac{5}{6},\frac{7}{6},\frac{4}{3},\frac{17}{12},\frac{3}{2};\frac{x^{12}}{139314069504t^4}\right)- \\
& 60t^{2/3}x^6\Gamma\left(-\frac{7}{12}\right)\Gamma\left(\frac{1}{12}\right){}_0F_7\left(\frac{5}{6},\frac{11}{12},\frac{7}{6},\frac{4}{3},\frac{3}{2},\frac{19}{12},\frac{5}{3};\frac{x^{12}}{139314069504t^4}\right)+ \\
& x^8\Gamma\left(-\frac{3}{4}\right)\Gamma\left(-\frac{1}{12}\right){}_0F_7\left(\frac{13}{12},\frac{7}{6},\frac{4}{3},\frac{3}{2},\frac{5}{3},\frac{7}{4},\frac{11}{6};\frac{x^{12}}{139314069504t^4}\right)\Bigg)+ \\
& 324\left(-\frac{6998400\sqrt{2}\pi t^{10/3}\Gamma\left(-\frac{5}{12}\right){}_0F_7\left(\frac{1}{6},\frac{1}{3},\frac{5}{12},\frac{1}{2},\frac{2}{3},\frac{5}{6};\frac{x^{12}}{139314069504t^4}\right)}{\Gamma\left(\frac{7}{4}\right)}+\right.
\end{aligned}$$

$$\begin{aligned}
& 13063680t^{8/3}x^2\Gamma\left(-\frac{7}{12}\right)\Gamma\left(\frac{13}{12}\right){}_0F_7\left(\left(\frac{1}{3}, \frac{1}{2}, \frac{7}{12}, \frac{2}{3}, \frac{5}{6}, \frac{11}{12}, \frac{7}{6}, \frac{x^{12}}{139314069504t^4}\right)\right) - \\
& 1658880\sqrt{3\pi}t^{7/3}\Gamma\left(-\frac{2}{3}\right)|x|^3{}_0F_7\left(\left(\frac{5}{12}, \frac{7}{12}, \frac{2}{3}, \frac{3}{4}, \frac{11}{12}, \frac{13}{12}, \frac{5}{4}, \frac{x^{12}}{139314069504t^4}\right)\right) + \\
& 77760t^2x^4\Gamma\left(-\frac{1}{12}\right)\Gamma\left(\frac{1}{4}\right){}_0F_7\left(\left(\frac{1}{2}, \frac{2}{3}, \frac{3}{4}, \frac{5}{6}, \frac{13}{12}, \frac{7}{6}, \frac{4}{3}, \frac{x^{12}}{139314069504t^4}\right)\right) + \\
& \frac{8640\sqrt{2\pi}t^{4/3}x^6\Gamma\left(\frac{1}{12}\right){}_0F_7\left(\left(\frac{2}{3}, \frac{5}{6}, \frac{11}{12}, \frac{7}{6}, \frac{5}{4}, \frac{4}{3}, \frac{3}{2}, \frac{x^{12}}{139314069504t^4}\right)\right)}{\Gamma\left(\frac{1}{4}\right)} - \\
& 20480\sqrt{3\pi}tx^6\Gamma\left(-\frac{10}{3}\right)|x|{}_0F_7\left(\left(\frac{3}{4}, \frac{11}{12}, \frac{13}{12}, \frac{5}{4}, \frac{4}{3}, \frac{17}{12}, \frac{19}{12}, \frac{x^{12}}{139314069504t^4}\right)\right) + \\
& 45t^{2/3}x^8\Gamma\left(-\frac{5}{12}\right)\Gamma\left(-\frac{1}{12}\right){}_0F_7\left(\left(\frac{5}{6}, \frac{13}{12}, \frac{7}{6}, \frac{4}{3}, \frac{17}{12}, \frac{3}{2}, \frac{5}{3}, \frac{x^{12}}{139314069504t^4}\right)\right) + \\
& \frac{3\sqrt{2\pi}x^{10}\Gamma\left(-\frac{7}{12}\right){}_0F_7\left(\left(\frac{7}{6}, \frac{5}{4}, \frac{4}{3}, \frac{3}{2}, \frac{19}{12}, \frac{5}{6}, \frac{11}{6}, \frac{x^{12}}{139314069504t^4}\right)\right)}{\Gamma\left(\frac{1}{4}\right)} \Bigg)
\end{aligned}$$

A.4: Using subordination integration between eqn (7) from the main manuscript and the Gaussian, the PDF for $\beta = \frac{1}{2}$ is as follows:

$$\begin{aligned}
P(x, t) = & \frac{\sqrt{t}}{\sqrt{\pi}} \left(\frac{{}_4F_1\left(\frac{1}{4}\right){}_0F_2\left(\frac{1}{2}, \frac{3}{4}; -\frac{x^4}{256t}\right)}{2\sqrt{2\pi}} - \right. \\
& -\frac{1}{2}|x|{}_0F_2\left(\frac{3}{4}, \frac{5}{4}; -\frac{x^4}{256t}\right) \\
& \left. - \frac{x^2\Gamma\left(-\frac{1}{4}\right){}_0F_2\left(\frac{5}{4}, \frac{3}{2}; -\frac{x^4}{256t}\right)}{16\sqrt{2\pi}\sqrt[4]{t}} \right)
\end{aligned}$$

A.5: Using subordination integration between eqn (S-4) and the Gaussian, the PDF for $\beta = \frac{2}{5}$ is as follows:

$$\begin{aligned}
P(x, t) = & - \left(\left(16\pi \left(99225\sqrt{2}t^{8/5}\Gamma\left(\frac{2}{5}\right) \left(5\sqrt{25-5\sqrt{5}}\Gamma\left(\frac{1}{5}\right) + \right. \right. \right. \right. \\
& \sqrt{5-\sqrt{5}} \left(5\Gamma\left(\frac{1}{5}\right) - 16\Gamma\left(-\frac{4}{5}\right) \right) + 2\sqrt{\sqrt{5}+5} \left(8\Gamma\left(-\frac{4}{5}\right) - 75\Gamma\left(\frac{6}{5}\right) \right) - \\
& \left. \left. \left. 50\sqrt{5(\sqrt{5}+5)}\Gamma\left(\frac{6}{5}\right) \right) \Gamma\left(\frac{8}{5}\right) {}_0F_7\left(\left(\frac{1}{5}, \frac{3}{10}, \frac{2}{5}, \frac{1}{2}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{x^{10}}{2500000000t^2}\right)\right) - \right. \right. \\
& 1488375(\sqrt{5}+1)\sqrt{2(\sqrt{5}+5)}t^{7/5}\Gamma\left(-\frac{3}{5}\right)\Gamma\left(\frac{2}{5}\right)\Gamma\left(\frac{8}{5}\right)|x| \times \\
& {}_0F_7\left(\left(\frac{3}{10}, \frac{2}{5}, \frac{1}{2}, \frac{3}{5}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{x^{10}}{2500000000t^2}\right)\right) - \\
& \frac{496125}{2}(\sqrt{5}+1)t^{6/5}x^2 \left(24\pi - \sqrt{2(\sqrt{5}+5)}\Gamma\left(\frac{2}{5}\right)\Gamma\left(\frac{3}{5}\right) \right) \Gamma\left(\frac{8}{5}\right) \times \\
& {}_0F_7\left(\left(\frac{2}{5}, \frac{1}{2}, \frac{3}{5}, \frac{7}{10}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{x^{10}}{2500000000t^2}\right)\right) + \\
& 99225\sqrt{10-2\sqrt{5}}(\sqrt{5}+1)t\Gamma\left(-\frac{6}{5}\right)\Gamma\left(\frac{2}{5}\right)\Gamma\left(\frac{8}{5}\right)|x|^3 \times \\
& {}_0F_7\left(\left(\frac{1}{2}, \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{x^{10}}{2500000000t^2}\right)\right) +
\end{aligned}$$

$$\begin{aligned}
& \frac{i(\sqrt{5}+5)^{3/2} {}^{10}\sqrt{t} {}_0F_8\left(\begin{smallmatrix} \frac{1}{5}, \frac{3}{10}, \frac{2}{5}, \frac{1}{2}, \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10} \end{smallmatrix}; -\frac{x^{10}}{10000000000t}\right)}{2\sqrt{10}\Gamma\left(-\frac{1}{10}\right)} \\
& \frac{5\left((-1)^{9/10}\sqrt{5-\sqrt{5}}(\sqrt{5}+1)t^{7/10}-(\sqrt{5}-1)\sqrt{\sqrt{5}+5}(-t)^{7/10}\right)}{11\sqrt{2}\pi t^{3/5}} \\
& \Gamma\left(\frac{21}{10}\right) {}_0F_8\left(\begin{smallmatrix} \frac{1}{5}, \frac{3}{10}, \frac{2}{5}, \frac{1}{2}, \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10} \end{smallmatrix}; -\frac{x^{10}}{10000000000t}\right) - \\
& \frac{244140625\sqrt{x^2} {}_0F_8\left(\begin{smallmatrix} \frac{3}{10}, \frac{2}{5}, \frac{1}{2}, \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10} \end{smallmatrix}; -\frac{x^{10}}{10000000000t}\right)}{6931873723686912\Gamma\left(-\frac{56}{5}\right)} + \\
& \frac{(-1)^{7/10}(\sqrt{5}-3)\sqrt{\sqrt{5}+5}x^2 {}_0F_8\left(\begin{smallmatrix} \frac{2}{5}, \frac{1}{2}, \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5} \end{smallmatrix}; -\frac{x^{10}}{10000000000t}\right)}{6\sqrt{2} {}^{10}\sqrt{t}\Gamma\left(-\frac{3}{10}\right)} - \\
& \frac{48828125i\sqrt{\frac{5-\sqrt{5}}{\pi}}x^2\Gamma\left(\frac{3}{5}\right) {}_0F_8\left(\begin{smallmatrix} \frac{2}{5}, \frac{1}{2}, \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5} \end{smallmatrix}; -\frac{x^{10}}{10000000000t}\right)}{27727494894747648 {}^{10}\sqrt{2} {}^{10}\sqrt{t}\Gamma\left(-\frac{56}{5}\right)} + \\
& \frac{\sqrt{\frac{1}{2}(\sqrt{5}+5)} {}^{10}\sqrt{-\frac{1}{t}}x^2\Gamma\left(\frac{13}{10}\right) {}_0F_8\left(\begin{smallmatrix} \frac{2}{5}, \frac{1}{2}, \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5} \end{smallmatrix}; -\frac{x^{10}}{10000000000t}\right)}{6\pi} + \\
& \frac{(-1)^{9/10}\sqrt{5}x^2\Gamma\left(\frac{1}{5}\right)\Gamma\left(\frac{8}{5}\right) {}_0F_8\left(\begin{smallmatrix} \frac{2}{5}, \frac{1}{2}, \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5} \end{smallmatrix}; -\frac{x^{10}}{10000000000t}\right)}{2^{3/5}(6-6\sqrt{5})\pi^{3/2} {}^{10}\sqrt{t}} + \\
& \frac{5\sqrt{\frac{1}{2}(3-\sqrt{5})}(x^2)^{3/2} {}_0F_8\left(\begin{smallmatrix} \frac{1}{2}, \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10} \end{smallmatrix}; -\frac{x^{10}}{10000000000t}\right)}{12(\sqrt{5}-1) {}^{5}\sqrt{t}\Gamma\left(-\frac{2}{5}\right)} + \\
& \frac{(-1)^{7/10}(\sqrt{5}-1)\sqrt{\frac{5-\sqrt{5}}{2\pi}}x^4 {}_0F_8\left(\begin{smallmatrix} \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5} \end{smallmatrix}; -\frac{x^{10}}{10000000000t}\right)}{480t^{3/10}} - \\
& \frac{(-1)^{9/10}(\sqrt{5}+3)\sqrt{\frac{5-\sqrt{5}}{2\pi}}x^4 {}_0F_8\left(\begin{smallmatrix} \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5} \end{smallmatrix}; -\frac{x^{10}}{10000000000t}\right)}{480t^{3/10}} - \\
& \frac{{}^{10}\sqrt{-1}(\sqrt{5}+1)x^4 {}_0F_8\left(\begin{smallmatrix} \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5} \end{smallmatrix}; -\frac{x^{10}}{10000000000t}\right)}{24(\sqrt{5}-5)\sqrt{2(\sqrt{5}+5)}\pi t^{3/10}} + \\
& \frac{(\sqrt{5}-1)\sqrt{\frac{5-\sqrt{5}}{2\pi}}t^{2/5}x^4 {}_0F_8\left(\begin{smallmatrix} \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5} \end{smallmatrix}; -\frac{x^{10}}{10000000000t}\right)}{480(-t)^{7/10}} - \\
& \frac{(x^2)^{5/2} {}_0F_8\left(\begin{smallmatrix} \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2} \end{smallmatrix}; -\frac{x^{10}}{10000000000t}\right)}{240t^{2/5}\Gamma\left(\frac{2}{5}\right)} - \\
& \frac{2384185791015625(-1)^{9/10}\sqrt{\pi}x^6 {}_0F_8\left(\begin{smallmatrix} \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{8}{5} \end{smallmatrix}; -\frac{x^{10}}{10000000000t}\right)}{6065945980057315758495904423194535133184 {}^{22/5}\sqrt{t}\Gamma\left(-\frac{112}{5}\right)\Gamma\left(-\frac{4}{5}\right)} - \\
& \frac{i(\sqrt{5}-1)\sqrt{\pi}x^6 {}_0F_8\left(\begin{smallmatrix} \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{8}{5} \end{smallmatrix}; -\frac{x^{10}}{10000000000t}\right)}{9600 {}^{22/5}\sqrt{t}\Gamma\left(-\frac{4}{5}\right)\Gamma\left(\frac{8}{5}\right)} - \\
& \frac{(-1)^{3/10}(\sqrt{5}-1)\sqrt{\frac{1}{2}(\sqrt{5}+5)}x^6\Gamma\left(\frac{17}{10}\right) {}_0F_8\left(\begin{smallmatrix} \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{8}{5} \end{smallmatrix}; -\frac{x^{10}}{10000000000t}\right)}{10080\pi\sqrt{t}} + \\
& \frac{299 {}^{10}\sqrt{-1}\sqrt{\frac{1}{2}(\sqrt{5}+5)}x^6 {}_0F_8\left(\begin{smallmatrix} \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{8}{5} \end{smallmatrix}; -\frac{x^{10}}{10000000000t}\right)}{1200000\sqrt{t}\Gamma\left(\frac{33}{10}\right)} + \\
& \frac{(x^2)^{7/2} {}_0F_8\left(\begin{smallmatrix} \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{8}{5}, \frac{17}{10} \end{smallmatrix}; -\frac{x^{10}}{10000000000t}\right)}{8064t^{3/5}\Gamma\left(-\frac{4}{5}\right)} + \\
& \frac{{}^{10}\sqrt{-1}(\sqrt{5}+1)x^8\Gamma\left(\frac{9}{10}\right) {}_0F_8\left(\begin{smallmatrix} \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{8}{5}, \frac{17}{10}, \frac{9}{5} \end{smallmatrix}; -\frac{x^{10}}{10000000000t}\right)}{80640\sqrt{10(\sqrt{5}+5)}\pi t^{7/10}} - \\
& \frac{11i\left(4 {}^{5}\sqrt{-1}\sqrt{5-\sqrt{5}}-(\sqrt{5}+1)\sqrt{\sqrt{5}+5}\right)x^8 {}_0F_8\left(\begin{smallmatrix} \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{8}{5}, \frac{17}{10}, \frac{9}{5} \end{smallmatrix}; -\frac{x^{10}}{10000000000t}\right)}{80640000\sqrt{2}t^{7/10}\Gamma\left(\frac{21}{10}\right)} - \\
& \frac{5\left(-\frac{1}{2}\right)^{3/10}\sqrt{\frac{5-\sqrt{5}}{\pi}}x^8\Gamma\left(\frac{19}{5}\right) {}_0F_8\left(\begin{smallmatrix} \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{8}{5}, \frac{17}{10}, \frac{9}{5} \end{smallmatrix}; -\frac{x^{10}}{10000000000t}\right)}{8128512t^{7/10}\Gamma\left(\frac{2}{5}\right)} \Bigg)
\end{aligned}$$

A.8: Using subordination integration between eqn (S-7) and the Gaussian, the PDF for

$\beta = \frac{1}{9}$ is as follows:

$$\begin{aligned}
P(x, t) = & \frac{1}{\sqrt[9]{t}} \left((-1)^{17/18} 2^{8/9} \sqrt{\pi} \sqrt[18]{t} \cos\left(\frac{\pi}{9}\right) \cos\left(\frac{2\pi}{9}\right) \times \right. \\
& \frac{{}_0F_{16}\left(\begin{smallmatrix} \frac{1}{9}, \frac{2}{9}, \frac{5}{18}, \frac{7}{18}, \frac{4}{9}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18} \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{\Gamma\left(-\frac{4}{9}\right)\Gamma\left(\frac{8}{9}\right)} + \\
& \frac{9\sqrt{x^2} {}_0F_{16}\left(\begin{smallmatrix} \frac{1}{9}, \frac{2}{9}, \frac{5}{18}, \frac{7}{18}, \frac{4}{9}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18} \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{2\Gamma\left(-\frac{1}{9}\right)} - \\
& \frac{(x^2)^{3/2} {}_0F_{16}\left(\begin{smallmatrix} \frac{5}{9}, \frac{1}{18}, \frac{7}{9}, \frac{4}{9}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6} \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{12\sqrt[9]{t}\Gamma\left(\frac{7}{9}\right)} + \\
& \frac{\sqrt[18]{-1} x^6 \csc\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right) \Gamma\left(\frac{7}{9}\right) \Gamma\left(\frac{10}{9}\right) \times}{{}_0F_{16}\left(\begin{smallmatrix} \frac{4}{9}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{18}, \frac{23}{4} \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)} - \\
& \frac{(-1)^{17/18} x^6 \csc^2\left(\frac{\pi}{9}\right) \csc^2\left(\frac{2\pi}{9}\right) \Gamma\left(\frac{7}{9}\right) \Gamma\left(\frac{10}{9}\right) \times}{1920 \cdot 2^{7/9} \pi^{3/2} t^{5/18}} \\
& \frac{{}_0F_{16}\left(\begin{smallmatrix} \frac{4}{9}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{18}, \frac{23}{4} \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{7680 \cdot 2^{7/9} \pi^{3/2} t^{5/18}} - \\
& \frac{(x^2)^{15/2} {}_0F_{16}\left(\begin{smallmatrix} \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{4}{9}, \frac{25}{9}, \frac{13}{3}, \frac{3}{2}, \frac{14}{9}, \frac{29}{18}, \frac{5}{3}, \frac{31}{18}, \frac{16}{9}, \frac{11}{6} \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{2615348736000 t^{7/9} \Gamma\left(\frac{1}{9}\right)} + \\
& \frac{\sqrt[18]{-1} \sqrt{\pi} x^{16} \cos\left(\frac{\pi}{9}\right) \cos\left(\frac{2\pi}{9}\right) \times}{{}_0F_{16}\left(\begin{smallmatrix} \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{4}{9}, \frac{25}{9}, \frac{13}{3}, \frac{3}{2}, \frac{14}{9}, \frac{29}{18}, \frac{5}{3}, \frac{31}{18}, \frac{16}{9}, \frac{11}{6}, \frac{17}{9} \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)} + \\
& \frac{52960811904000 \cdot 2^{8/9} t^{5/6} \Gamma\left(\frac{1}{9}\right) \Gamma\left(\frac{13}{9}\right)}{1935360 \sqrt{\pi} t^{7/18}} + \\
& \frac{\sqrt[18]{-1} x^8 \cot\left(\frac{\pi}{9}\right) \cot\left(\frac{2\pi}{9}\right) \csc\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right) \times}{\sec\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{4}{9}, \frac{25}{9}, \frac{13}{3} \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)} - \\
& \frac{1935360 \sqrt{\pi} t^{7/18}}{1935360 \sqrt{\pi} t^{7/18}} - \\
& \frac{(-1)^{17/18} x^8 \cot\left(\frac{\pi}{9}\right) \cot\left(\frac{2\pi}{9}\right) \csc\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right) \times}{\sec\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{4}{9}, \frac{25}{9}, \frac{13}{3} \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)} - \\
& \frac{1935360 \sqrt{\pi} t^{7/18}}{1935360 \sqrt{\pi} t^{7/18}} - \\
& \frac{(-1)^{17/18} x^{12} \cos\left(\frac{2\pi}{9}\right) \cot\left(\frac{\pi}{9}\right) \Gamma\left(\frac{13}{18}\right) \times}{\sec\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{4}{9}, \frac{25}{9}, \frac{13}{3}, \frac{14}{9}, \frac{29}{18}, \frac{5}{3} \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)} + \\
& \frac{2874009600 \sqrt{3} \pi t^{11/18}}{2874009600 \sqrt{3} \pi t^{11/18}} + \\
& \frac{\sqrt[18]{-1} x^{12} \cot\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right) \times}{\sec\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{4}{9}, \frac{25}{9}, \frac{13}{3}, \frac{14}{9}, \frac{29}{18}, \frac{5}{3} \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)} + \\
& \frac{20692869120 t^{11/18} \Gamma\left(\frac{23}{18}\right)}{20692869120 t^{11/18} \Gamma\left(\frac{23}{18}\right)} + \\
& \frac{\sqrt[18]{-1} x^{14} \cos\left(\frac{2\pi}{9}\right) \cot\left(\frac{\pi}{9}\right) \times}{\sec\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{4}{9}, \frac{25}{9}, \frac{13}{3}, \frac{14}{9}, \frac{29}{18}, \frac{5}{3}, \frac{31}{18}, \frac{16}{9} \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)} - \\
& \frac{1345036492800 \sqrt{3} t^{13/18} \Gamma\left(\frac{13}{6}\right)}{1345036492800 \sqrt{3} t^{13/18} \Gamma\left(\frac{13}{6}\right)} - \\
& \frac{(x^2)^{5/2} \csc\left(\frac{\pi}{18}\right) \sec\left(\frac{\pi}{9}\right) \sec\left(\frac{2\pi}{9}\right) \times}{{}_0F_{16}\left(\begin{smallmatrix} \frac{7}{18}, \frac{4}{9}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{18}, \frac{23}{9} \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)} - \\
& \frac{1920 t^{2/9} \Gamma\left(\frac{2}{3}\right)}{1920 t^{2/9} \Gamma\left(\frac{2}{3}\right)} -
\end{aligned}$$

$$\begin{aligned}
& (x^2)^{11/2} \csc\left(\frac{\pi}{18}\right) \sec\left(\frac{\pi}{9}\right) \sec\left(\frac{2\pi}{9}\right) \times \\
& \frac{{}_0F_{16}\left(\begin{smallmatrix} 13, 7, 5, 8, 17, 19, 10, 7, 11, 23, 4, 25, 13, 3, 14, 29 \\ 18, 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{709632000t^{5/9}\Gamma\left(-\frac{5}{3}\right)} - \\
& (x^2)^{13/2} \csc\left(\frac{\pi}{18}\right) \sec\left(\frac{\pi}{9}\right) \sec\left(\frac{2\pi}{9}\right) \times \\
& \frac{{}_0F_{16}\left(\begin{smallmatrix} 5, 8, 17, 19, 10, 7, 11, 23, 4, 25, 13, 3, 14, 29, 5, 31 \\ 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{137763225600t^{2/3}\Gamma\left(-\frac{16}{9}\right)} + \\
& (-1)^{11/18} \sqrt{3} \sqrt[18]{t} \cot\left(\frac{2\pi}{9}\right) \csc\left(\frac{\pi}{9}\right) \Gamma\left(\frac{19}{18}\right) \times \\
& \frac{\sin\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 1, 1, 6, 2, 5, 1, 7, 4, 1, 5, 11, 2, 13, 7, 5, 8, 17 \\ 18, 18, 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{+} \\
& (-1)^{5/6} x^2 \csc^2\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right) \Gamma\left(\frac{7}{6}\right) \times \\
& \frac{\sin\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 2, 5, 1, 7, 4, 1, 5, 11, 2, 13, 7, 5, 8, 17, 19, 10 \\ 18, 18, 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{8\pi \sqrt[18]{t}} + \\
& 3\sqrt[6]{-1} \sqrt{3} x^4 \csc^2\left(\frac{\pi}{9}\right) \Gamma\left(\frac{11}{9}\right) \times \\
& \frac{\sin\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 1, 7, 4, 1, 5, 11, 2, 13, 7, 5, 8, 17, 19, 10, 7, 11 \\ 18, 18, 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{16 \cdot 2^{2/3} \sqrt[6]{t} \Gamma\left(-\frac{1}{9}\right) \Gamma\left(\frac{1}{18}\right)} - \\
& 3(-1)^{7/18} \sqrt{3} x^4 \csc\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right) \Gamma\left(\frac{11}{9}\right) \times \\
& \frac{\sin\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 1, 7, 4, 1, 5, 11, 2, 13, 7, 5, 8, 17, 19, 10, 7, 11 \\ 18, 18, 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{16 \cdot 2^{2/3} \sqrt[6]{t} \Gamma\left(-\frac{1}{9}\right) \Gamma\left(\frac{1}{18}\right)} - \\
& 9\sqrt[6]{-1} \sqrt{\frac{3}{\pi}} x^6 \csc\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right) \Gamma\left(\frac{10}{9}\right) \times \\
& \frac{\sin\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 4, 1, 5, 11, 2, 13, 7, 5, 8, 17, 19, 10, 7, 11, 23, 4 \\ 9, 18, 18, 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{17920 \cdot 2^{7/9} t^{5/18} \Gamma\left(-\frac{16}{9}\right)} + \\
& ix^6 \csc\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right) \Gamma\left(\frac{5}{9}\right) \times \\
& \frac{\sin\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 4, 1, 5, 11, 2, 13, 7, 5, 8, 17, 19, 10, 7, 11, 23, 4 \\ 9, 18, 18, 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{3456 \sqrt[3]{2} \sqrt{3} t^{5/18} \Gamma\left(-\frac{1}{9}\right) \Gamma\left(\frac{23}{18}\right)} + \\
& (-1)^{13/18} \sqrt{\pi} x^{10} \times \\
& \frac{\sin\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 2, 13, 7, 5, 8, 17, 19, 10, 7, 11, 23, 4, 25, 13, 3, 14 \\ 18, 18, 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{7257600 \cdot 2^{2/9} \sqrt{t} \Gamma\left(-\frac{8}{9}\right) \Gamma\left(\frac{7}{9}\right)} - \\
& i\sqrt{\pi} x^{10} \cos\left(\frac{2\pi}{9}\right) \times \\
& \frac{\sin\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 2, 13, 7, 5, 8, 17, 19, 10, 7, 11, 23, 4, 25, 13, 3, 14 \\ 18, 18, 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{7257600 \cdot 2^{2/9} \sqrt{t} \Gamma\left(-\frac{8}{9}\right) \Gamma\left(\frac{7}{9}\right)} + \\
& (-1)^{7/18} \sqrt{\pi} x^{10} \cos\left(\frac{2\pi}{9}\right) \times \\
& \frac{\sin\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 2, 13, 7, 5, 8, 17, 19, 10, 7, 11, 23, 4, 25, 13, 3, 14 \\ 18, 18, 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{3628800 \cdot 2^{2/9} \sqrt{t} \Gamma\left(-\frac{8}{9}\right) \Gamma\left(\frac{7}{9}\right)} - \\
& i\sqrt{\pi} x^{12} \cos\left(\frac{\pi}{9}\right) \times \\
& \frac{\sin\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 7, 5, 8, 17, 19, 10, 7, 11, 23, 4, 25, 13, 3, 14, 29, 5 \\ 9, 18, 18, 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{662323200 \cdot 2^{4/9} t^{11/18} \Gamma\left(-\frac{16}{9}\right) \Gamma\left(-\frac{4}{9}\right)} +
\end{aligned}$$

$$\begin{aligned}
& (-1)^{5/18} x^{12} \cot\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right) \Gamma\left(\frac{13}{18}\right) \times \\
& \frac{\sin\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 7, 5, 8, 17, 19, 10, 7, 11, 23, 4, 25, 13, 3, 14, 29, 5 \\ 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{2874009600\sqrt{3}\pi t^{11/18}} - \\
& \frac{(-1)^{7/18} x^{12} \sin\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 7, 5, 8, 17, 19, 10, 7, 11, 23, 4, 25, 13, 3, 14, 29, 5 \\ 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{2586608640\sqrt{3}t^{11/18}\Gamma\left(\frac{23}{18}\right)} - \\
& \frac{\sqrt[6]{-1} x^{12} \cot\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right) \times}{5173217280\sqrt{3}t^{11/18}\Gamma\left(\frac{23}{18}\right)} + \\
& \frac{\sin\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 7, 5, 8, 17, 19, 10, 7, 11, 23, 4, 25, 13, 3, 14, 29, 5 \\ 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{5173217280\sqrt{3}t^{11/18}\Gamma\left(\frac{23}{18}\right)} + \\
& i\sqrt{\pi} x^{14} \cos\left(\frac{\pi}{9}\right) \cos\left(\frac{2\pi}{9}\right) \times \\
& \frac{\sin\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 8, 17, 19, 10, 7, 11, 23, 4, 25, 13, 3, 14, 29, 5, 31, 16 \\ 9, 18, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{121080960000 \ 2^{2/3} t^{13/18} \Gamma\left(-\frac{5}{3}\right)^2} - \\
& \frac{(-1)^{7/18} x^{14} \cot\left(\frac{2\pi}{9}\right) \csc\left(\frac{\pi}{9}\right) \times}{1345036492800\sqrt{3}t^{13/18}\Gamma\left(\frac{13}{6}\right)} + \\
& \frac{\sin\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 8, 17, 19, 10, 7, 11, 23, 4, 25, 13, 3, 14, 29, 5, 31, 16 \\ 9, 18, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{1345036492800\sqrt{3}t^{13/18}\Gamma\left(\frac{13}{6}\right)} - \\
& \frac{(-1)^{5/18} x^{14} \cot\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right) \times}{1345036492800\sqrt{3}t^{13/18}\Gamma\left(\frac{13}{6}\right)} - \\
& \frac{\sin\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 8, 17, 19, 10, 7, 11, 23, 4, 25, 13, 3, 14, 29, 5, 31, 16 \\ 9, 18, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{1345036492800\sqrt{3}t^{13/18}\Gamma\left(\frac{13}{6}\right)} - \\
& \frac{(-1)^{7/18} x^{16} \cot\left(\frac{2\pi}{9}\right) \csc\left(\frac{\pi}{9}\right) \Gamma\left(\frac{26}{9}\right) \times}{105388867584000 \ 2^{8/9} \sqrt{3} \pi t^{5/6} \Gamma\left(\frac{4}{9}\right)} - \\
& \frac{\sin\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 19, 10, 7, 11, 23, 4, 25, 13, 3, 14, 29, 5, 31, 16, 11, 17 \\ 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18, 9, 6, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{105388867584000 \ 2^{8/9} \sqrt{3} \pi t^{5/6} \Gamma\left(\frac{4}{9}\right)} - \\
& \frac{(-1)^{17/18} x^{14} \cos\left(\frac{\pi}{9}\right) \cos\left(\frac{2\pi}{9}\right) \times}{504388684800t^{13/18}\Gamma\left(\frac{13}{6}\right)} + \\
& \frac{\sin\left(\frac{\pi}{9}\right) {}_0F_{16}\left(\begin{smallmatrix} 8, 17, 19, 10, 7, 11, 23, 4, 25, 13, 3, 14, 29, 5, 31, 16 \\ 9, 18, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{504388684800t^{13/18}\Gamma\left(\frac{13}{6}\right)} + \\
& \frac{(x^2)^{7/2} \csc\left(\frac{\pi}{18}\right) \times}{8960 \sqrt[3]{t} \Gamma\left(-\frac{4}{9}\right)} - \\
& \frac{\sin\left(\frac{\pi}{9}\right) \sec\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 1, 5, 11, 2, 13, 7, 5, 8, 17, 19, 10, 7, 11, 23, 4, 25 \\ 2, 9, 18, 3, 18, 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{8960 \sqrt[3]{t} \Gamma\left(-\frac{4}{9}\right)} - \\
& \frac{(x^2)^{9/2} \sin\left(\frac{\pi}{9}\right) \csc\left(\frac{\pi}{18}\right) \csc\left(\frac{2\pi}{9}\right) \sec\left(\frac{2\pi}{9}\right) \times}{2903040t^{4/9}\Gamma\left(\frac{4}{9}\right)} - \\
& \frac{{}_0F_{16}\left(\begin{smallmatrix} 11, 2, 13, 7, 5, 8, 17, 19, 10, 7, 11, 23, 4, 25, 13, 3 \\ 18, 3, 18, 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9, 2 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{2903040t^{4/9}\Gamma\left(\frac{4}{9}\right)} - \\
& \frac{(-1)^{11/18} x^{12} \sin\left(\frac{\pi}{18}\right) \sin\left(\frac{\pi}{9}\right) \times}{3879912960t^{11/18}\Gamma\left(\frac{23}{18}\right)} + \\
& \frac{{}_0F_{16}\left(\begin{smallmatrix} 7, 5, 8, 17, 19, 10, 7, 11, 23, 4, 25, 13, 3, 14, 29, 5 \\ 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{3879912960t^{11/18}\Gamma\left(\frac{23}{18}\right)} + \\
& \frac{(-1)^{5/6} x^{12} \sin\left(\frac{\pi}{18}\right) \sin\left(\frac{\pi}{9}\right) \cos\left(\frac{\pi}{9}\right) \times}{1939956480t^{11/18}\Gamma\left(\frac{23}{18}\right)} + \\
& \frac{{}_0F_{16}\left(\begin{smallmatrix} 7, 5, 8, 17, 19, 10, 7, 11, 23, 4, 25, 13, 3, 14, 29, 5 \\ 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{1939956480t^{11/18}\Gamma\left(\frac{23}{18}\right)} +
\end{aligned}$$

$$\begin{aligned}
& (-1)^{13/18} x^{14} \sin\left(\frac{\pi}{18}\right) \sin\left(\frac{\pi}{9}\right) \cos\left(\frac{\pi}{9}\right) \times \\
& \frac{{}_0F_{16}\left(\begin{smallmatrix} 8, 17, 19, 10, 7, 11, 23, 4, 25, 13, 3, 14, 29, 5, 31, 16, \\ 9, 18, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{504388684800t^{13/18}\Gamma\left(\frac{13}{6}\right)} - \\
& (-1)^{11/18} x^{14} \sin\left(\frac{\pi}{18}\right) \sin\left(\frac{2\pi}{9}\right) \cos\left(\frac{2\pi}{9}\right) \times \\
& \frac{{}_0F_{16}\left(\begin{smallmatrix} 8, 17, 19, 10, 7, 11, 23, 4, 25, 13, 3, 14, 29, 5, 31, 16, \\ 9, 18, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{504388684800t^{13/18}\Gamma\left(\frac{13}{6}\right)} - \\
& \frac{x^{16}}{753220435968000t^{5/6}\Gamma\left(\frac{1}{18}\right)} \times \\
& {}_0F_{16}\left(\begin{smallmatrix} 19, 10, 7, 11, 23, 4, 25, 13, 3, 14, 29, 5, 31, 16, 11, 17, \\ 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18, 9, 6, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right) \times \\
& (-16(-1)^{13/18} \cos\left(\frac{\pi}{9}\right) + 8(-1)^{11/18} \sqrt{3} \cot\left(\frac{2\pi}{9}\right) - 2i\sqrt{3} \cot\left(\frac{\pi}{9}\right) \cot\left(\frac{2\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right) + \\
& 4\sqrt{-1} \sqrt{3} \cot\left(\frac{\pi}{9}\right) \cot\left(\frac{2\pi}{9}\right) \sec\left(\frac{\pi}{18}\right) - 3(-1)^{5/18} \cot\left(\frac{\pi}{9}\right) \csc^2\left(\frac{2\pi}{9}\right) \sec\left(\frac{\pi}{18}\right) + \\
& 32(-1)^{5/6} \sin\left(\frac{\pi}{9}\right) \cos\left(\frac{\pi}{9}\right) \cot\left(\frac{2\pi}{9}\right) \sin\left(\frac{2\pi}{9}\right) + \\
& \frac{1}{\Gamma\left(-\frac{1}{18}\right)} \left(4(-1)^{13/18} \sqrt{3} \sqrt[18]{t} \cos\left(\frac{\pi}{9}\right) \times \right. \\
& {}_0F_{16}\left(\begin{smallmatrix} 1, 1, 2, 5, 1, 7, 4, 1, 5, 11, 2, 13, 7, 5, 8, 17, \\ 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18, 9, 6, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right) + \\
& i\sqrt{3} \sqrt[18]{t} \cot\left(\frac{\pi}{9}\right) \cot\left(\frac{2\pi}{9}\right) \times \\
& {}_0F_{16}\left(\begin{smallmatrix} 1, 1, 2, 5, 1, 7, 4, 1, 5, 11, 2, 13, 7, 5, 8, 17, \\ 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18, 9, 6, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right) + \\
& (-1)^{5/18} \sqrt{3} \sqrt[18]{t} \cot\left(\frac{\pi}{9}\right) \times \\
& \sec\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 1, 1, 2, 5, 1, 7, 4, 1, 5, 11, 2, 13, 7, 5, 8, 17, \\ 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18, 9, 6, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right) - \\
& \frac{3}{2}(-1)^{7/18} \sqrt[18]{t} \cot\left(\frac{2\pi}{9}\right) \csc\left(\frac{\pi}{9}\right) \times \\
& \sec\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 1, 1, 2, 5, 1, 7, 4, 1, 5, 11, 2, 13, 7, 5, 8, 17, \\ 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18, 9, 6, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right) - \\
& 16\sqrt{-1} \sqrt[18]{t} \cos\left(\frac{\pi}{9}\right) \cos\left(\frac{2\pi}{9}\right) \times \\
& \sin\left(\frac{\pi}{9}\right) {}_0F_{16}\left(\begin{smallmatrix} 1, 1, 2, 5, 1, 7, 4, 1, 5, 11, 2, 13, 7, 5, 8, 17, \\ 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18, 9, 6, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right) - \\
& 16(-1)^{5/6} \sqrt[18]{t} \cos\left(\frac{\pi}{9}\right) \cos\left(\frac{2\pi}{9}\right) \times \\
& \sin\left(\frac{2\pi}{9}\right) {}_0F_{16}\left(\begin{smallmatrix} 1, 1, 2, 5, 1, 7, 4, 1, 5, 11, 2, 13, 7, 5, 8, 17, \\ 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18, 9, 6, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right) \Big) + \\
& \frac{(-1)^{5/18} x^6 \tan\left(\frac{\pi}{18}\right) \csc\left(\frac{\pi}{9}\right) \Gamma\left(\frac{7}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 4, 1, 5, 11, 2, 13, 7, 5, 8, 17, 19, 10, 7, 11, 23, 4, \\ 9, 18, 3, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{8640\sqrt{3}\pi t^{5/18}} + \\
& (-1)^{5/6} x^6 \csc^2\left(\frac{\pi}{9}\right) \csc^2\left(\frac{2\pi}{9}\right) \Gamma\left(\frac{19}{9}\right) \times \\
& \frac{\tan\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 4, 1, 5, 11, 2, 13, 7, 5, 8, 17, 19, 10, 7, 11, 23, 4, \\ 9, 18, 3, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{15360 \sqrt[3]{2} t^{5/18} \Gamma\left(\frac{4}{9}\right) \Gamma\left(\frac{23}{18}\right)} + \\
& \frac{(-1)^{5/18} x^8 \tan\left(\frac{\pi}{18}\right) \cot\left(\frac{\pi}{9}\right) {}_0F_{16}\left(\begin{smallmatrix} 5, 11, 2, 13, 7, 5, 8, 17, 19, 10, 7, 11, 23, 4, 25, 13, \\ 9, 18, 3, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{241920\sqrt{3}\pi t^{7/18}} - \\
& \frac{(-1)^{7/18} x^8 \tan\left(\frac{\pi}{18}\right) \cot\left(\frac{2\pi}{9}\right) {}_0F_{16}\left(\begin{smallmatrix} 5, 11, 2, 13, 7, 5, 8, 17, 19, 10, 7, 11, 23, 4, 25, 13, \\ 9, 18, 3, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{241920\sqrt{3}\pi t^{7/18}} + \\
& \frac{(-1)^{11/18} x^8 \tan\left(\frac{\pi}{18}\right) \cot\left(\frac{2\pi}{9}\right) {}_0F_{16}\left(\begin{smallmatrix} 5, 11, 2, 13, 7, 5, 8, 17, 19, 10, 7, 11, 23, 4, 25, 13, \\ 9, 18, 3, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{241920\sqrt{3}\pi t^{7/18}}
\end{aligned}$$

$$\frac{\sqrt[6]{-1}x^8 \cot\left(\frac{\pi}{9}\right) \cot\left(\frac{2\pi}{9}\right) \times \tan\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 5, 11, 2, 13, 7, 5, 8, 17, 19, 10, 7, 11, 23, 4, 25, 13, \\ 9, 18, 3, 18, 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{241920\sqrt{\pi}t^{7/18}} -$$

$$\frac{\sqrt[6]{-1}x^{14} \cot\left(\frac{\pi}{9}\right) \cot\left(\frac{2\pi}{9}\right) \Gamma\left(\frac{5}{3}\right) \times \tan\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 8, 17, 19, 10, 7, 11, 23, 4, 25, 13, 3, 14, 29, 5, 31, 16, \\ 9, 18, 3, 18, 9, 6, 9, 18, 3, 18, 9, 2, 9, 18, 3, 18, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{193729536000 \ 2^{2/3}\sqrt{\pi}t^{13/18}\Gamma\left(-\frac{5}{3}\right)} +$$

$$\frac{27(-1)^{11/18}x^6 \cot\left(\frac{2\pi}{9}\right) \csc\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right) \Gamma\left(\frac{10}{9}\right) \times \tan\left(\frac{\pi}{18}\right) \sec\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 4, 1, 5, 11, 2, 13, 7, 5, 8, 17, 19, 10, 7, 11, 23, 4, \\ 9, 18, 3, 18, 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{71680 \ 2^{7/9}\sqrt{\pi}t^{5/18}\Gamma\left(-\frac{16}{9}\right)} -$$

$$\frac{(-1)^{13/18}x^6 \csc^2\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right) \Gamma\left(\frac{7}{9}\right) \Gamma\left(\frac{10}{9}\right) \times \tan\left(\frac{\pi}{18}\right) \sec\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 4, 1, 5, 11, 2, 13, 7, 5, 8, 17, 19, 10, 7, 11, 23, 4, \\ 9, 18, 3, 18, 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{2560 \ 2^{7/9}\sqrt{3}\pi^{3/2}t^{5/18}} -$$

$$\frac{(-1)^{13/18}x^8 \cot\left(\frac{\pi}{9}\right) \csc\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right) \times \tan\left(\frac{\pi}{18}\right) \sec\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 5, 11, 2, 13, 7, 5, 8, 17, 19, 10, 7, 11, 23, 4, 25, 13, \\ 9, 18, 3, 18, 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{1935360\sqrt{\pi}t^{7/18}} +$$

$$\frac{(-1)^{5/6}x^8 \cot\left(\frac{\pi}{9}\right) \cot\left(\frac{2\pi}{9}\right) \csc\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right) \times \tan\left(\frac{\pi}{18}\right) \sec\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 5, 11, 2, 13, 7, 5, 8, 17, 19, 10, 7, 11, 23, 4, 25, 13, \\ 9, 18, 3, 18, 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{645120\sqrt{3}\pi t^{7/18}} -$$

$$\frac{x^4\Gamma\left(\frac{23}{18}\right) \left(3(-1)^{13/18} \tan\left(\frac{\pi}{18}\right) \csc^3\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right) - 4\sqrt[18]{-1}\sqrt{3} \csc^2\left(\frac{\pi}{9}\right)\right) \times {}_0F_{16}\left(\begin{smallmatrix} 1, 7, 4, 1, 5, 11, 2, 13, 7, 5, 8, 17, 19, 10, 7, 11, \\ 3, 18, 9, 2, 9, 18, 3, 18, 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{1920\pi\sqrt[6]{t}} +$$

$$\begin{aligned} & \frac{1}{1152\sqrt[18]{t}\Gamma\left(\frac{5}{6}\right)} \left(-16(-1)^{17/18}\sqrt{3}x^2 \csc^2\left(\frac{\pi}{9}\right) \times \right. \\ & {}_0F_{16}\left(\begin{smallmatrix} 2, 5, 1, 7, 4, 1, 5, 11, 2, 13, 7, 5, 8, 17, 19, 10, \\ 9, 18, 3, 18, 9, 2, 9, 18, 3, 18, 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right) + \\ & 16\sqrt[18]{-1}\sqrt{3}x^2 \csc\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right) \times \\ & {}_0F_{16}\left(\begin{smallmatrix} 2, 5, 1, 7, 4, 1, 5, 11, 2, 13, 7, 5, 8, 17, 19, 10, \\ 9, 18, 3, 18, 9, 2, 9, 18, 3, 18, 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right) + \\ & 12(-1)^{11/18}x^2 \csc^2\left(\frac{\pi}{9}\right) \csc^3\left(\frac{2\pi}{9}\right) \times \\ & \sin\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 2, 5, 1, 7, 4, 1, 5, 11, 2, 13, 7, 5, 8, 17, 19, 10, \\ 9, 18, 3, 18, 9, 2, 9, 18, 3, 18, 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right) - \\ & 32(-1)^{5/18}\sqrt{3}x^2 \csc\left(\frac{\pi}{9}\right) \times \\ & \tan\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 2, 5, 1, 7, 4, 1, 5, 11, 2, 13, 7, 5, 8, 17, 19, 10, \\ 9, 18, 3, 18, 9, 2, 9, 18, 3, 18, 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right) - \\ & 12(-1)^{13/18}x^2 \csc^3\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right) \times \\ & \tan\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 2, 5, 1, 7, 4, 1, 5, 11, 2, 13, 7, 5, 8, 17, 19, 10, \\ 9, 18, 3, 18, 9, 2, 9, 18, 3, 18, 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right) + \\ & 12(-1)^{7/18}x^2 \csc^2\left(\frac{\pi}{9}\right) \csc^2\left(\frac{2\pi}{9}\right) \times \\ & \tan\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 2, 5, 1, 7, 4, 1, 5, 11, 2, 13, 7, 5, 8, 17, 19, 10, \\ 9, 18, 3, 18, 9, 2, 9, 18, 3, 18, 9, 6, 9, 18, 18, 9, 6, 9, 18, 3, 18, 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right) - \\ & 3i\sqrt{3}x^2 \csc^3\left(\frac{\pi}{9}\right) \csc^2\left(\frac{2\pi}{9}\right) \times \\ & \frac{1}{4608\pi^{3/2}\sqrt[6]{t}} \Gamma\left(\frac{2}{9}\right) \Gamma\left(\frac{5}{9}\right) \left(-4(-1)^{17/18}2^{4/9}x^4 \csc^2\left(\frac{\pi}{9}\right) \times \right. \end{aligned}$$

$$\begin{aligned}
& {}_0F_{16} \left(\begin{matrix} \frac{1}{3}, \frac{7}{18}, \frac{4}{9}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9} \end{matrix}; -\frac{x^{18}}{39346408075296537575424t} \right) + \\
& 2(-1)^{5/6} 2^{4/9} x^4 \csc^3 \left(\frac{\pi}{9} \right) \csc \left(\frac{2\pi}{9} \right) \times \\
& \sin \left(\frac{\pi}{18} \right) {}_0F_{16} \left(\begin{matrix} \frac{1}{3}, \frac{7}{18}, \frac{4}{9}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9} \end{matrix}; -\frac{x^{18}}{39346408075296537575424t} \right) - \\
& i 2^{4/9} x^4 \csc^3 \left(\frac{\pi}{9} \right) \times \\
& \tan \left(\frac{\pi}{18} \right) {}_0F_{16} \left(\begin{matrix} \frac{1}{3}, \frac{7}{18}, \frac{4}{9}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9} \end{matrix}; -\frac{x^{18}}{39346408075296537575424t} \right) + \\
& (-1)^{11/18} 2^{4/9} \sqrt{3} x^4 \csc^2 \left(\frac{\pi}{9} \right) \csc^2 \left(\frac{2\pi}{9} \right) \times \\
& \tan \left(\frac{\pi}{18} \right) {}_0F_{16} \left(\begin{matrix} \frac{1}{3}, \frac{7}{18}, \frac{4}{9}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9} \end{matrix}; -\frac{x^{18}}{39346408075296537575424t} \right) \Bigg) - \\
& \frac{1}{4353564672\sqrt{t}\Gamma\left(\frac{61}{18}\right)} 43 \left(-2 \sqrt[18]{-1} \sqrt{3} x^{10} \cot \left(\frac{2\pi}{9} \right) \csc \left(\frac{\pi}{9} \right) \times \right. \\
& {}_0F_{16} \left(\begin{matrix} \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3}, \frac{25}{18}, \frac{13}{9}, \frac{3}{2}, \frac{14}{9} \end{matrix}; -\frac{x^{18}}{39346408075296537575424t} \right) + \\
& 3(-1)^{17/18} x^{10} \cot \left(\frac{2\pi}{9} \right) \csc \left(\frac{\pi}{9} \right) \times \\
& \sec \left(\frac{\pi}{18} \right) {}_0F_{16} \left(\begin{matrix} \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3}, \frac{25}{18}, \frac{13}{9}, \frac{3}{2}, \frac{14}{9} \end{matrix}; -\frac{x^{18}}{39346408075296537575424t} \right) - \\
& 8(-1)^{5/18} \sqrt{3} x^{10} \times \\
& \sin \left(\frac{\pi}{18} \right) {}_0F_{16} \left(\begin{matrix} \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3}, \frac{25}{18}, \frac{13}{9}, \frac{3}{2}, \frac{14}{9} \end{matrix}; -\frac{x^{18}}{39346408075296537575424t} \right) + \\
& 4\sqrt[6]{-1} \sqrt{3} x^{10} \cot \left(\frac{2\pi}{9} \right) \csc \left(\frac{\pi}{9} \right) \times \\
& \sin \left(\frac{\pi}{18} \right) {}_0F_{16} \left(\begin{matrix} \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3}, \frac{25}{18}, \frac{13}{9}, \frac{3}{2}, \frac{14}{9} \end{matrix}; -\frac{x^{18}}{39346408075296537575424t} \right) - \\
& 4(-1)^{5/6} \sqrt{3} x^{10} \cos \left(\frac{2\pi}{9} \right) \csc \left(\frac{\pi}{9} \right) \times \\
& \tan \left(\frac{\pi}{18} \right) {}_0F_{16} \left(\begin{matrix} \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3}, \frac{25}{18}, \frac{13}{9}, \frac{3}{2}, \frac{14}{9} \end{matrix}; -\frac{x^{18}}{39346408075296537575424t} \right) \Bigg) \Bigg)
\end{aligned}$$

3. Flux solutions

The subordination integration used in the previous section can be repeated to obtain the flux solutions. The only difference in this integration is that the Gaussian is replaced with the flux of the following form: $F(x, t) = \frac{1}{4\sqrt{\pi t^{\frac{3}{4}}}} \exp\left(-\frac{x^2}{4t}\right) x$.

B.1: Flux solution for $\beta = \frac{4}{5}$:

$$\begin{aligned}
F(x, t) = & \left(\frac{1}{8\sqrt{\pi} t^{8/5} \Gamma\left(-\frac{7}{5}\right)} x \left(\frac{20}{21} 2^{3/5} t^{6/5} \Gamma\left(\frac{13}{10}\right) {}_2F_7 \left(\frac{11}{20}, \frac{21}{20}, \frac{1}{5}, \frac{2}{5}, \frac{1}{2}, \frac{3}{5}, \frac{7}{10}, \frac{9}{10}, \frac{11}{10}, \frac{x^{10}}{39062500t^4} \right) + \right. \right. \\
& \frac{1}{6} \sqrt{\pi} |x|^3 {}_2F_7 \left(\frac{17}{20}, \frac{27}{20}, \frac{1}{2}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{x^{10}}{39062500t^4} \right) - \frac{3(\sqrt{5}+3)}{560t^{2/5}} \\
& \sqrt{\frac{10-2\sqrt{5}}{\pi}} x^4 \Gamma\left(\frac{3}{5}\right) \Gamma\left(\frac{9}{5}\right) {}_2F_7 \left(\frac{19}{20}, \frac{29}{20}, \frac{3}{5}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{x^{10}}{39062500t^4} \right) + \\
& \frac{13\sqrt{\frac{10-2\sqrt{5}}{\pi}} x^6 \Gamma\left(\frac{3}{5}\right)^2 {}_2F_7 \left(\frac{23}{20}, \frac{33}{20}, \frac{4}{5}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{3}{2}, \frac{8}{5}, \frac{17}{10}, \frac{x^{10}}{39062500t^4} \right) - \\
& \frac{36750t^{6/5}}{945000t^2} {}_2F_7 \left(\frac{27}{20}, \frac{37}{20}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{9}{10}, \frac{19}{10}, \frac{x^{10}}{39062500t^4} \right) \Bigg) - \\
& \frac{5}{42} (\sqrt{5} + 1) \sqrt{\frac{\sqrt{5}+5}{2\pi}} t^{2/5} x^2 \Gamma\left(\frac{3}{5}\right) {}_3F_8 \left(\frac{3}{4}, 1, \frac{5}{4}, \frac{2}{5}, \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{x^{10}}{39062500t^4} \right) \Bigg) + \\
& \frac{1}{4\sqrt{\pi} \Gamma\left(\frac{1}{5}\right)} x \left(\frac{2\sqrt{\pi} {}_2F_7 \left(\frac{9}{20}, \frac{19}{20}, \frac{1}{10}, \frac{3}{10}, \frac{2}{5}, \frac{1}{2}, \frac{3}{5}, \frac{4}{5}, \frac{9}{10}, \frac{x^{10}}{39062500t^4} \right)}{|x|} - \right.
\end{aligned}$$

$$\begin{aligned}
& \frac{5(\sqrt{5}+1)\sqrt{\pi}\Gamma\left(\frac{16}{5}\right) {}_2F_7\left(\frac{11}{20}, \frac{21}{20}, \frac{1}{5}, \frac{2}{5}, \frac{1}{2}, \frac{3}{5}, \frac{7}{10}, \frac{9}{10}, \frac{11}{10}, \frac{x^{10}}{39062500t^4}\right)}{33t^{2/5}\Gamma\left(\frac{4}{5}\right)} - \\
& \frac{3\sqrt{\pi}x^4 {}_2F_7\left(\frac{19}{20}, \frac{29}{20}, \frac{3}{5}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{x^{10}}{39062500t^4}\right)}{625t^2} + \\
& \frac{(\sqrt{5}-1)\sqrt{\pi}x^6\Gamma\left(\frac{28}{5}\right) {}_2F_7\left(\frac{23}{20}, \frac{33}{20}, \frac{4}{5}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{3}{2}, \frac{8}{5}, \frac{17}{10}, \frac{x^{10}}{39062500t^4}\right)}{208656t^{14/5}\Gamma\left(\frac{4}{5}\right)} + \\
& \frac{17x^8\Gamma\left(-\frac{9}{10}\right) {}_2F_7\left(\frac{27}{20}, \frac{37}{20}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{17}{10}, \frac{9}{5}, \frac{19}{10}, \frac{x^{10}}{39062500t^4}\right)}{1875000 {}_2F_7\left(\frac{27}{20}, \frac{37}{20}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{17}{10}, \frac{9}{5}, \frac{19}{10}, \frac{x^{10}}{39062500t^4}\right)} + \\
& \frac{(\sqrt{5}-1)\sqrt{\pi}x^2 {}_3F_8\left(\frac{3}{4}, 1, \frac{5}{4}, \frac{2}{5}, \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{x^{10}}{39062500t^4}\right)}{15t^{6/5}\Gamma\left(\frac{4}{5}\right)} \Bigg) + \\
& \frac{1}{5987520000\sqrt{5-\sqrt{5}}(\sqrt{5}+3)\pi t^{18/5}\Gamma\left(-\frac{3}{5}\right)}\sqrt{5}+)|x| \left(-337500000\sqrt{2}(3\sqrt{5}+5)t^{16/5}\Gamma\left(\frac{12}{5}\right)\right. \\
& \Gamma\left(\frac{16}{5}\right) {}_2F_7\left(\frac{11}{20}, \frac{21}{20}, \frac{1}{5}, \frac{2}{5}, \frac{1}{2}, \frac{3}{5}, \frac{7}{10}, \frac{9}{10}, \frac{11}{10}, \frac{x^{10}}{39062500t^4}\right) + \\
& 21384000\sqrt{10}t^{8/5}x^4\Gamma\left(\frac{4}{5}\right)\Gamma\left(\frac{12}{5}\right) {}_2F_7\left(\frac{19}{20}, \frac{29}{20}, \frac{3}{5}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{x^{10}}{39062500t^4}\right) - \\
& 247104\sqrt{5-\sqrt{5}}(\sqrt{5}+1)\pi t^{4/5}x^6 {}_2F_7\left(\frac{23}{20}, \frac{33}{20}, \frac{4}{5}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{3}{2}, \frac{8}{5}, \frac{17}{10}, \frac{x^{10}}{39062500t^4}\right) + \\
& 1375\sqrt{2}x^2\Gamma\left(\frac{17}{5}\right)\left(17\sqrt{5}x^6\Gamma\left(\frac{7}{5}\right) {}_2F_7\left(\frac{27}{20}, \frac{37}{20}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{17}{10}, \frac{9}{5}, \frac{19}{10}, \frac{x^{10}}{39062500t^4}\right) - \right. \\
& \left. 45000(3\sqrt{5}+5)t^{12/5} {}_3F_8\left(\frac{3}{4}, 1, \frac{5}{4}, \frac{2}{5}, \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{x^{10}}{39062500t^4}\right)\right) \Bigg) - \\
& \frac{1}{3118500000(\sqrt{5}-5)\sqrt{\pi}t^{18/5}\Gamma\left(-\frac{11}{5}\right)\Gamma\left(\frac{13}{10}\right)\Gamma\left(\frac{16}{5}\right)}x \left(118125000(\sqrt{5}-5)\sqrt{\pi}t^{16/5}\Gamma\left(\frac{13}{10}\right)\Gamma\left(\frac{16}{5}\right)\right. \\
& {}_2F_7\left(\frac{11}{20}, \frac{21}{20}, \frac{1}{5}, \frac{2}{5}, \frac{1}{2}, \frac{3}{5}, \frac{7}{10}, \frac{9}{10}, \frac{11}{10}, \frac{x^{10}}{39062500t^4}\right) + \\
& 1796256 {}_2F_7\left(\frac{11}{20}, \frac{21}{20}, \frac{1}{5}, \frac{2}{5}, \frac{1}{2}, \frac{3}{5}, \frac{7}{10}, \frac{9}{10}, \frac{11}{10}, \frac{x^{10}}{39062500t^4}\right) + \\
& x^2\Gamma\left(\frac{13}{10}\right)\left(-2165625(\sqrt{5}-5)\sqrt{\pi}t^{6/5}x^2\Gamma\left(\frac{16}{5}\right)|x| {}_2F_7\left(\frac{21}{20}, \frac{31}{20}, \frac{7}{10}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{7}{5}, \frac{3}{2}, \frac{8}{5}, \frac{x^{10}}{39062500t^4}\right) \right. \\
& \left. 247104\sqrt{5}\pi t^{4/5}x^4\Gamma\left(-\frac{2}{5}\right) {}_2F_7\left(\frac{23}{20}, \frac{33}{20}, \frac{4}{5}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{3}{2}, \frac{8}{5}, \frac{17}{10}, \frac{x^{10}}{39062500t^4}\right) + \right. \\
& \left. 62503\sqrt{5}-5\left(2^{2/5}x^6\Gamma\left(\frac{27}{10}\right)\Gamma\left(\frac{16}{5}\right) {}_2F_7\left(\frac{27}{20}, \frac{37}{20}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{17}{10}, \frac{9}{5}, \frac{19}{10}, \frac{x^{10}}{39062500t^4}\right) + \right. \right. \\
& \left. \left. 16632\sqrt{\pi}t^{12/5} {}_3F_8\left(\frac{3}{4}, 1, \frac{5}{4}, \frac{2}{5}, \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{x^{10}}{39062500t^4}\right)\right)\right) \Bigg)
\end{aligned}$$

B.2: Flux solution for $\beta = \frac{3}{4}$:

$$\begin{aligned}
F(x, t) = & \frac{1}{t^{3/4}} \left(\frac{1}{8\pi t^{3/4}} x \left(\frac{3^{5/8} t^{3/8} \Gamma\left(\frac{1}{8}\right) \Gamma\left(\frac{17}{24}\right) \Gamma\left(\frac{3}{4}\right) \Gamma\left(\frac{25}{24}\right) {}_2F_6\left(\frac{17}{24}, \frac{25}{24}, \frac{1}{4}, \frac{1}{2}, \frac{5}{8}, \frac{3}{4}, \frac{7}{8}, \frac{9}{8}, -\frac{27x^8}{16777216t^3}\right)}{2^{3/4}\pi^{3/2}} \right. \right. \\
& \left. \sqrt{\pi}|x| {}_2F_6\left(\frac{5}{6}, \frac{7}{6}, \frac{3}{8}, \frac{5}{8}, \frac{3}{4}, \frac{7}{8}, \frac{9}{8}, \frac{5}{4}, -\frac{27x^8}{16777216t^3}\right) + \right. \\
& \frac{1}{2560\sqrt{2}t^{15/8}} \sqrt[8]{3}x^2 \left(\frac{2560\sqrt[4]{3}t^{3/2}\Gamma\left(\frac{23}{24}\right)\Gamma\left(\frac{31}{24}\right) {}_2F_6\left(\frac{23}{24}, \frac{31}{24}, \frac{1}{2}, \frac{3}{4}, \frac{7}{8}, \frac{9}{8}, \frac{5}{4}, \frac{11}{8}, -\frac{27x^8}{16777216t^3}\right)}{\Gamma\left(\frac{3}{8}\right)} - \right. \\
& \frac{48t^{3/4}x^2\Gamma\left(\frac{29}{24}\right)\Gamma\left(\frac{37}{24}\right) {}_2F_6\left(\frac{29}{24}, \frac{37}{24}, \frac{3}{4}, \frac{9}{8}, \frac{5}{8}, \frac{11}{8}, \frac{3}{2}, \frac{13}{8}, -\frac{27x^8}{16777216t^3}\right)}{\Gamma\left(\frac{9}{8}\right)} + \\
& \left. \left. \frac{3^{3/4}x^4\Gamma\left(\frac{35}{24}\right)\Gamma\left(\frac{43}{24}\right) {}_2F_6\left(\frac{35}{24}, \frac{43}{24}, \frac{5}{4}, \frac{11}{8}, \frac{3}{2}, \frac{13}{8}, \frac{7}{4}, \frac{15}{8}, -\frac{27x^8}{16777216t^3}\right)}{\Gamma\left(\frac{15}{8}\right)} \right) \right) \Bigg) +
\end{aligned}$$

$$\begin{aligned}
& \frac{x}{8\sqrt{\pi}t^{3/2}\Gamma(-\frac{5}{4})} \\
& \left(-\frac{2^{35/8}\sqrt{\pi}t^{3/8}x^2\Gamma(\frac{23}{24})\Gamma(\frac{5}{4})\Gamma(\frac{31}{24}){}_2F_6\left(\frac{23}{24},\frac{31}{24},\frac{1}{2},\frac{3}{4},\frac{7}{8},\frac{9}{8},\frac{5}{8},\frac{11}{8};-\frac{27x^8}{16777216t^3}\right)}{\Gamma(\frac{1}{12})\Gamma(\frac{11}{8})\Gamma(\frac{17}{12})} + \right. \\
& \frac{1}{6}\sqrt{\pi}(x^2)^{3/2}{}_2F_6\left(\frac{13}{12},\frac{17}{12},\frac{5}{8},\frac{7}{8},\frac{9}{8},\frac{5}{4},\frac{11}{8},\frac{3}{2};-\frac{27x^8}{16777216t^3}\right) + \frac{\Gamma(\frac{5}{4})}{1920^{37/8}t^{9/8}} \\
& \frac{1}{6}\sqrt{\pi}(x^2)^{3/2}{}_2F_6\left(\frac{13}{12},\frac{17}{12},\frac{5}{8},\frac{7}{8},\frac{9}{8},\frac{5}{4},\frac{11}{8},\frac{3}{2};-\frac{27x^8}{16777216t^3}\right) + \\
& \frac{\Gamma(\frac{5}{4})}{1920^{37/8}t^{9/8}} \\
& \left(-\frac{192^{27/12}\sqrt[4]{3}t^{3/4}x^4\cos(\frac{\pi}{8})\Gamma(\frac{7}{8})\Gamma(\frac{37}{24}){}_2F_6\left(\frac{29}{24},\frac{37}{24},\frac{3}{4},\frac{9}{8},\frac{5}{8},\frac{11}{8},\frac{3}{2},\frac{13}{8};-\frac{27x^8}{16777216t^3}\right)}{\Gamma(\frac{17}{24})\Gamma(\frac{13}{12})} + \right. \\
& \frac{3\sqrt{\pi}x^6\Gamma(\frac{35}{24})\Gamma(\frac{43}{24}){}_2F_6\left(\frac{35}{24},\frac{43}{24},\frac{5}{4},\frac{11}{8},\frac{3}{2},\frac{13}{8},\frac{7}{4},\frac{15}{8};-\frac{27x^8}{16777216t^3}\right)}{\Gamma(\frac{13}{12})\Gamma(\frac{17}{12})\Gamma(\frac{15}{8})} + \\
& \left. \frac{2560^{33/4}\sqrt{2\pi}t^{9/4}\sin(\frac{\pi}{8})\Gamma(\frac{3}{8}){}_2F_6\left(\frac{17}{24},\frac{25}{24},\frac{1}{2},\frac{1}{2},\frac{5}{8},\frac{3}{4},\frac{7}{8},\frac{9}{8};-\frac{27x^8}{16777216t^3}\right)}{\Gamma(\frac{13}{24})\Gamma(\frac{29}{24})} \right) \Bigg) + \\
& \frac{x}{4\sqrt{\pi}\Gamma(\frac{1}{4})} \\
& \left(\frac{2\sqrt{\pi}{}_2F_6\left(\frac{7}{12},\frac{11}{12},\frac{1}{8},\frac{3}{8},\frac{1}{2},\frac{5}{8},\frac{3}{4},\frac{7}{8};-\frac{27x^8}{16777216t^3}\right)}{\sqrt{x^2}} + \right. \\
& \frac{1}{10485760^{37/8}t^{21/8}\Gamma(\frac{7}{12})} \\
& \left(\frac{2318400^{23/4}\sqrt[4]{3}t^{9/4}\Gamma(-\frac{23}{8})\Gamma(-\frac{1}{4})^2\Gamma(\frac{17}{24})\Gamma(\frac{25}{24})}{\pi\Gamma(\frac{11}{12})} \right. \\
& {}_2F_6\left(\frac{17}{24},\frac{25}{24},\frac{1}{4},\frac{1}{2},\frac{5}{8},\frac{3}{4},\frac{7}{8},\frac{9}{8};-\frac{27x^8}{16777216t^3}\right) + \\
& \frac{3795^{12}\sqrt{2}\sqrt{3}x^6\cos(\frac{\pi}{8})\Gamma(-\frac{23}{8})\Gamma(-\frac{1}{4})\Gamma(\frac{43}{24})}{\Gamma(\frac{23}{24})} \\
& {}_2F_6\left(\frac{35}{24},\frac{43}{24},\frac{5}{4},\frac{11}{8},\frac{3}{2},\frac{13}{8},\frac{7}{4},\frac{15}{8};-\frac{27x^8}{16777216t^3}\right) + \\
& (8192\pi^{3/2}(13^{33/4}t^{3/4}x^4\Gamma(-\frac{1}{4})\Gamma(\frac{29}{24}) \\
& {}_2F_6\left(\frac{29}{24},\frac{37}{24},\frac{3}{4},\frac{9}{8},\frac{5}{4},\frac{11}{8},\frac{3}{2},\frac{13}{8};-\frac{27x^8}{16777216t^3}\right) \\
& 3840\sqrt[3]{2}t^{3/2}x^2\Gamma(\frac{11}{12})\Gamma(\frac{31}{24}) + \sec(\frac{\pi}{24}) \\
& \sin(\frac{\pi}{8}){}_2F_6\left(\frac{23}{24},\frac{31}{24},\frac{1}{2},\frac{3}{4},\frac{7}{8},\frac{9}{8},\frac{5}{4},\frac{11}{8};-\frac{27x^8}{16777216t^3}\right) \Bigg) / \Gamma(\frac{1}{8})\Gamma(\frac{11}{24})\Gamma(\frac{11}{12}) \Bigg) \Bigg)
\end{aligned}$$

B.3: Flux solution for $\beta = \frac{2}{3}$:

$$\begin{aligned}
F(x,t) &= \frac{1}{t^{2/3}}e^{-\frac{2}{27t^2}} \left(-\frac{3|x|{}_0F_7\left(\frac{1}{12},\frac{1}{4},\frac{1}{3},\frac{5}{12},\frac{7}{12},\frac{3}{4},\frac{11}{12};\frac{x^{12}}{139314069504t^4}\right)}{4x\Gamma(-\frac{2}{3})} - \right. \\
& \frac{x\Gamma(\frac{7}{12})\Gamma(\frac{11}{12}){}_0F_7\left(\frac{1}{6},\frac{1}{3},\frac{5}{12},\frac{1}{2},\frac{2}{3},\frac{5}{6},\frac{13}{12};\frac{x^{12}}{139314069504t^4}\right)}{4\pi^{3/2}\sqrt[3]{t}} + \\
& \frac{x\Gamma(\frac{5}{12})\Gamma(\frac{13}{12}){}_0F_7\left(\frac{1}{6},\frac{1}{3},\frac{1}{2},\frac{7}{12},\frac{2}{3},\frac{5}{6},\frac{11}{12};\frac{x^{12}}{139314069504t^4}\right)}{4\pi^{3/2}\sqrt[3]{t}} + \\
& \frac{1}{52488\sqrt{3}\pi t^{8/3}}x|x|\left(-6561t^2\Gamma\left(\frac{1}{3}\right)\right. \\
& {}_0F_7\left(\frac{1}{4},\frac{5}{12},\frac{7}{12},\frac{2}{3},\frac{3}{4},\frac{11}{12},\frac{13}{12};\frac{x^{12}}{139314069504t^4}\right) + \\
& 126t^{2/3}x^4\Gamma\left(-\frac{10}{3}\right){}_0F_7\left(\frac{7}{12},\frac{3}{4},\frac{11}{12},\frac{13}{12},\frac{5}{4},\frac{4}{3},\frac{17}{12};\frac{x^{12}}{139314069504t^4}\right) + \\
& \left. 22x^6\Gamma\left(-\frac{14}{3}\right){}_0F_7\left(\frac{3}{4},\frac{11}{12},\frac{13}{12},\frac{5}{4},\frac{17}{12},\frac{19}{12},\frac{5}{3};\frac{x^{12}}{139314069504t^4}\right)\right) +
\end{aligned}$$

$$\begin{aligned}
& \frac{1}{1433272320\pi^{3/2}t^{11/3}}x^3\left(-2488320t^{8/3}\Gamma\left(-\frac{1}{4}\right)\Gamma\left(\frac{5}{12}\right){}_0F_7\left(\left(\frac{1}{3}, \frac{1}{2}, \frac{7}{12}, \frac{2}{3}, \frac{5}{6}, \frac{7}{6}, \frac{5}{4}, \frac{x^{12}}{139314069504t^4}\right)\right)-\right. \\
& 22394880t^{8/3}\Gamma\left(-\frac{3}{4}\right)\Gamma\left(\frac{11}{12}\right){}_0F_7\left(\left(\frac{1}{3}, \frac{1}{2}, \frac{2}{3}, \frac{3}{4}, \frac{5}{6}, \frac{13}{12}, \frac{7}{6}, \frac{x^{12}}{139314069504t^4}\right)\right)+ \\
& x^2\left(103680t^2\Gamma\left(-\frac{5}{12}\right)\Gamma\left(\frac{1}{4}\right){}_0F_7\left(\left(\frac{1}{2}, \frac{2}{3}, \frac{3}{4}, \frac{5}{6}, \frac{7}{6}, \frac{4}{3}, \frac{17}{12}, \frac{x^{12}}{139314069504t^4}\right)\right)+\right. \\
& 103680t^2\Gamma\left(-\frac{1}{4}\right)\Gamma\left(\frac{1}{12}\right){}_0F_7\left(\left(\frac{1}{2}, \frac{2}{3}, \frac{5}{6}, \frac{11}{12}, \frac{7}{6}, \frac{5}{4}, \frac{4}{3}, \frac{x^{12}}{139314069504t^4}\right)\right)+ \\
& x^2\left(-2880t^{4/3}\Gamma\left(-\frac{7}{12}\right)\Gamma\left(\frac{1}{12}\right){}_0F_7\left(\left(\frac{2}{3}, \frac{5}{6}, \frac{11}{12}, \frac{7}{6}, \frac{4}{3}, \frac{3}{2}, \frac{19}{12}, \frac{x^{12}}{139314069504t^4}\right)\right)- \\
& 2880t^{4/3}\Gamma\left(-\frac{5}{12}\right)\Gamma\left(-\frac{1}{12}\right){}_0F_7\left(\left(\frac{2}{3}, \frac{5}{6}, \frac{13}{12}, \frac{7}{6}, \frac{4}{3}, \frac{17}{12}, \frac{3}{2}, \frac{x^{12}}{139314069504t^4}\right)\right)+ \\
& x^2\left(60t^{2/3}\Gamma\left(-\frac{3}{4}\right)\Gamma\left(-\frac{1}{12}\right){}_0F_7\left(\left(\frac{5}{6}, \frac{13}{12}, \frac{7}{6}, \frac{4}{3}, \frac{3}{2}, \frac{5}{3}, \frac{7}{4}, \frac{x^{12}}{139314069504t^4}\right)\right)+ \\
& 60t^{2/3}\Gamma\left(-\frac{7}{12}\right)\Gamma\left(-\frac{1}{4}\right){}_0F_7\left(\left(\frac{5}{6}, \frac{7}{6}, \frac{5}{4}, \frac{4}{3}, \frac{3}{2}, \frac{19}{12}, \frac{5}{3}, \frac{x^{12}}{139314069504t^4}\right)\right)+ \\
& \left(\frac{4\sqrt{2}\pi\Gamma\left(-\frac{11}{12}\right){}_0F_7\left(\left(\frac{7}{6}, \frac{5}{4}, \frac{3}{2}, \frac{5}{3}, \frac{11}{6}, \frac{23}{12}, \frac{x^{12}}{139314069504t^4}\right)\right)}{\Gamma\left(\frac{1}{4}\right)}-\right. \\
& \left.\Gamma\left(-\frac{3}{4}\right)\Gamma\left(-\frac{5}{12}\right){}_0F_7\left(\left(\frac{7}{6}, \frac{4}{3}, \frac{17}{12}, \frac{3}{2}, \frac{5}{3}, \frac{7}{4}, \frac{11}{6}, \frac{x^{12}}{139314069504t^4}\right)\right)\right)\right)
\end{aligned}$$

B.4: Flux solution for $\beta = \frac{1}{2}$:

$$F(x, t) = \frac{x {}_0F_2\left(\left(\frac{1}{4}, \frac{3}{4}, -\frac{x^4}{256t}\right)\right) - x^3\Gamma\left(-\frac{3}{4}\right){}_0F_2\left(\left(\frac{3}{2}, \frac{7}{4}, -\frac{x^4}{256t}\right)\right) + 32\sqrt{t}x\Gamma\left(\frac{3}{4}\right){}_0F_2\left(\left(\frac{1}{2}, \frac{5}{4}, -\frac{x^4}{256t}\right)\right)}{2|x|} - \frac{64\sqrt{2\pi}t^{3/4}}{\sqrt{\pi}\sqrt{t}}$$

B.5: Flux solution for $\beta = \frac{2}{5}$:

$$\begin{aligned}
F(x, t) = & -\left((4\pi x(7441875\sqrt{2}(\sqrt{5}+1)t^{9/5}\Gamma\left(-\frac{3}{5}\right)\Gamma\left(\frac{2}{5}\right)\right.\right. \\
& \Gamma\left(\frac{3}{5}\right)\Gamma\left(\frac{9}{10}\right){}_0F_7\left(\left(\frac{1}{10}, \frac{3}{10}, \frac{2}{5}, \frac{1}{2}, \frac{3}{5}, \frac{4}{5}, \frac{9}{10}, \frac{x^{10}}{2500000000t^2}\right)\right)+ \\
& 496125t^{8/5}\Gamma\left(\frac{3}{5}\right)\left(8\pi(\sqrt{5}+5)\sqrt{5-\sqrt{5}}+5\sqrt{2}(\sqrt{5}+1)\Gamma\left(\frac{2}{5}\right)\Gamma\left(\frac{3}{5}\right)\right)\Gamma\left(\frac{9}{10}\right)|x| \\
& {}_0F_7\left(\left(\frac{1}{5}, \frac{2}{5}, \frac{1}{2}, \frac{3}{5}, \frac{7}{10}, \frac{9}{10}, \frac{11}{10}, \frac{x^{10}}{2500000000t^2}\right)\right)+ \\
& \frac{1}{2}x^2\Gamma\left(\frac{2}{5}\right)\left(4961250\sqrt{2}t^{7/5}\Gamma\left(-\frac{1}{5}\right)\Gamma\left(\frac{3}{5}\right)\Gamma\left(\frac{9}{10}\right){}_0F_7\left(\left(\frac{3}{10}, \frac{1}{2}, \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{11}{10}, \frac{6}{5}, \frac{x^{10}}{2500000000t^2}\right)\right)+ \\
& \frac{1}{8}x^2(3307500\sqrt{2}t\Gamma\left(\frac{1}{5}\right)\Gamma\left(\frac{3}{5}\right)\Gamma\left(\frac{9}{10}\right) \\
& {}_0F_7\left(\left(\frac{1}{2}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{x^{10}}{2500000000t^2}\right)\right)+ \\
& 315t^{4/5}|x|\left(-1682^{7/10}\sqrt{\pi}\Gamma\left(-\frac{1}{5}\right)\Gamma\left(\frac{3}{5}\right)-336\sqrt{5-\sqrt{5}}(3\sqrt{5}+5)\pi\Gamma\left(\frac{9}{10}\right)+ \\
& {}_0F_7\left(\left(\frac{1}{5}, \frac{2}{5}, \frac{1}{2}, \frac{3}{5}, \frac{7}{10}, \frac{9}{10}, \frac{11}{10}, \frac{x^{10}}{2500000000t^2}\right)\right)+ \\
& \frac{1}{2}x^2\Gamma\left(\frac{2}{5}\right)(4961250\sqrt{2}t^{7/5}\Gamma\left(-\frac{1}{5}\right)\Gamma\left(\frac{3}{5}\right)\Gamma\left(\frac{9}{10}\right) \\
& {}_0F_7\left(\left(\frac{3}{10}, \frac{1}{2}, \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{11}{10}, \frac{6}{5}, \frac{x^{10}}{2500000000t^2}\right)\right)+ \\
& \frac{1}{8}x^2(3307500\sqrt{2}t\Gamma\left(\frac{1}{5}\right)\Gamma\left(\frac{3}{5}\right)\Gamma\left(\frac{9}{10}\right){}_0F_7\left(\left(\frac{1}{2}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{x^{10}}{2500000000t^2}\right)\right)+ \\
& 315t^{4/5}|x|\left(-1682^{7/10}\sqrt{\pi}\Gamma\left(-\frac{1}{5}\right)\Gamma\left(\frac{3}{5}\right)- \\
& \sqrt{2}\Gamma\left(\frac{3}{5}\right)+336\pi(3\sqrt{5}+5)\sqrt{5-\sqrt{5}}\Gamma\left(\frac{9}{10}\right) \\
& 168\sqrt[5]{2}\sqrt{5}\pi\Gamma\left(-\frac{1}{5}\right)-(\sqrt{5}+1)\Gamma\left(\frac{9}{10}\right)(625\Gamma\left(\frac{17}{5}\right)+252\Gamma\left(-\frac{3}{5}\right))) \\
& {}_0F_7\left(\left(\frac{3}{5}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{x^{10}}{2500000000t^2}\right)\right)- \\
& x^2\Gamma\left(\frac{3}{5}\right)\Gamma\left(\frac{9}{10}\right)\left(-165375\sqrt{2}(\sqrt{5}+1)t^{3/5}\Gamma\left(\frac{3}{5}\right){}_0F_7\left(\left(\frac{7}{10}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{7}{5}, \frac{3}{2}, \frac{8}{5}, \frac{x^{10}}{2500000000t^2}\right)\right)+\right.
\end{aligned}$$

$$\begin{aligned}
& |x| \left(10\sqrt{2}t^{2/5} \left(625\Gamma\left(\frac{19}{5}\right) - 1575 \left(\sqrt{5} - 1\right) \Gamma\left(\frac{9}{5}\right) + 252\Gamma\left(-\frac{1}{5}\right) + 1260 \left(\sqrt{5} + 3\right) \Gamma\left(\frac{4}{5}\right) \right) \right. \\
& {}_0F_7\left(\left(\frac{4}{5}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{3}{2}, \frac{8}{5}, \frac{17}{10}, \frac{x^{10}}{25000000000t^2}\right) + \right. \\
& \left. \frac{21}{4}x^2 \left(8\sqrt{2} \left(\sqrt{5} + 3\right) \Gamma\left(-\frac{4}{5}\right) + 5 \left(-4\sqrt{2} + \sqrt{3 - \sqrt{5}} + \sqrt{15 - 5\sqrt{5}} \right) \Gamma\left(\frac{1}{5}\right) + \right. \right. \\
& \left. \left. 50\sqrt{2} \left(\sqrt{5} - 1\right) \Gamma\left(\frac{6}{5}\right) \right) {}_0F_7\left(\left(\frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{17}{10}, \frac{9}{5}, \frac{19}{10}, \frac{x^{10}}{25000000000t^2}\right) \right) \right) \Bigg/ \\
& 297675 \left(\sqrt{5} - 1\right) \left(\sqrt{5} + 5\right)^2 t^{11/5} \sqrt{-(\sqrt{5} - 5) x^2 \Gamma\left(-\frac{3}{5}\right) \Gamma\left(-\frac{1}{5}\right) \Gamma\left(\frac{1}{5}\right) \Gamma\left(\frac{2}{5}\right) \Gamma\left(\frac{3}{5}\right)^2 \Gamma\left(\frac{9}{10}\right)}
\end{aligned}$$

B.6: Flux solution for $\beta = \frac{1}{3}$:

$$\begin{aligned}
F(x, t) = & \frac{1}{3456\pi^{3/2}\sqrt[3]{t}}x \left(\frac{864\sqrt{3}\pi\Gamma\left(\frac{1}{3}\right){}_0F_4\left(\left(\frac{1}{6}, \frac{1}{2}, \frac{2}{3}, \frac{5}{6}, -\frac{x^6}{46656t}\right)\right)}{|x|} + \right. \\
& \frac{1}{t^{5/6}} \left(-1728\pi t^{2/3} {}_0F_4\left(\left(\frac{1}{3}, \frac{2}{3}, \frac{5}{6}, \frac{7}{6}, -\frac{x^6}{46656t}\right)\right) + \right. \\
& 192\sqrt{3}\pi\sqrt{t}\Gamma\left(-\frac{4}{3}\right)|x|{}_0F_4\left(\left(\frac{1}{2}, \frac{5}{6}, \frac{7}{6}, \frac{4}{3}, -\frac{x^6}{46656t}\right)\right) - \\
& 8\sqrt[3]{2}\sqrt[3]{3}\sqrt[3]{t}x^2\Gamma\left(-\frac{1}{3}\right)^2{}_0F_4\left(\left(\frac{2}{3}, \frac{7}{6}, \frac{4}{3}, \frac{3}{2}, -\frac{x^6}{46656t}\right)\right) - \\
& \left. \left. \sqrt{\pi}x^4\Gamma\left(-\frac{5}{6}\right){}_0F_4\left(\left(\frac{4}{3}, \frac{3}{2}, \frac{5}{3}, \frac{11}{6}, -\frac{x^6}{46656t}\right)\right) \right) \right)
\end{aligned}$$

B.7: Flux solution for $\beta = \frac{1}{5}$:

$$\begin{aligned}
F(x, t) = & \frac{25\sqrt{\frac{1}{x^2}}x{}_0F_8\left(\left(\frac{1}{10}, \frac{3}{10}, \frac{2}{5}, \frac{1}{2}, \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, -\frac{x^{10}}{10000000000t}\right)\right)}{12\sqrt[5]{t}\Gamma\left(-\frac{6}{5}\right)} + \\
& \frac{7(\sqrt{5}-1)\left(-\frac{1}{t}\right)^{7/10}t^{2/5}x\Gamma\left(-\frac{7}{10}\right){}_0F_8\left(\left(\frac{1}{5}, \frac{2}{5}, \frac{1}{2}, \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, -\frac{x^{10}}{10000000000t}\right)\right)}{20\sqrt{10(5-\sqrt{5})}\pi} + \\
& \frac{2\sqrt{\frac{10}{5-\sqrt{5}}}x{}_0F_8\left(\left(\frac{1}{5}, \frac{2}{5}, \frac{1}{2}, \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, -\frac{x^{10}}{10000000000t}\right)\right)}{3^{10}\sqrt{-\frac{1}{t}}t^{2/5}\Gamma\left(-\frac{3}{10}\right)} - \\
& \frac{5(\sqrt{5}-1)\sqrt{\pi}x{}_0F_8\left(\left(\frac{1}{5}, \frac{2}{5}, \frac{1}{2}, \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, -\frac{x^{10}}{10000000000t}\right)\right)}{12\sqrt[3]{5}\sqrt{-\frac{1}{t}}t^{4/5}\Gamma\left(-\frac{6}{5}\right)\Gamma\left(\frac{2}{5}\right)} - \\
& \frac{125\sqrt{\frac{1}{2}(3-\sqrt{5})}x{}_0F_8\left(\left(\frac{3}{10}, \frac{1}{2}, \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, -\frac{x^{10}}{10000000000t}\right)\right)}{336(\sqrt{5}-1)t^{2/5}\sqrt{\frac{1}{x^2}}\Gamma\left(-\frac{12}{5}\right)} + \\
& \frac{(\sqrt{5}-1)\sqrt{\frac{5-\sqrt{5}}{2\pi}}x^3{}_0F_8\left(\left(\frac{2}{5}, \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, -\frac{x^{10}}{10000000000t}\right)\right)}{120\left(-\frac{1}{t}\right)^{3/10}t^{4/5}} + \\
& \frac{(\sqrt{5}+1)x^3{}_0F_8\left(\left(\frac{2}{5}, \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, -\frac{x^{10}}{10000000000t}\right)\right)}{6(\sqrt{5}-5)\sqrt{2(\sqrt{5}+5)}\pi\sqrt[10]{-\frac{1}{t}}t^{3/5}} + \\
& \frac{(\sqrt{5}+1)^{10}\sqrt{-\frac{1}{t}}x^3{}_0F_8\left(\left(\frac{2}{5}, \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, -\frac{x^{10}}{10000000000t}\right)\right)}{6(\sqrt{5}-5)\sqrt{2(\sqrt{5}+5)}\pi t^{2/5}} + \\
& \frac{(\sqrt{5}-1)\sqrt{\frac{5-\sqrt{5}}{2\pi}}\left(-\frac{1}{t}\right)^{3/10}x^3{}_0F_8\left(\left(\frac{2}{5}, \frac{3}{5}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, -\frac{x^{10}}{10000000000t}\right)\right)}{120\sqrt[5]{t}} - \\
& \frac{5x{}_0F_8\left(\left(\frac{1}{2}, \frac{7}{10}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}, -\frac{x^{10}}{10000000000t}\right)\right)}{144t^{3/5}\left(\frac{1}{x^2}\right)^{3/2}\Gamma\left(-\frac{3}{5}\right)} - \\
& \frac{25\sqrt{\pi}x^5{}_0F_8\left(\left(\frac{3}{5}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, -\frac{x^{10}}{10000000000t}\right)\right)}{8064\sqrt[10]{-\frac{1}{t}}t^{4/5}\Gamma\left(-\frac{12}{5}\right)\Gamma\left(-\frac{4}{5}\right)} - \\
& \frac{25(\sqrt{5}-1)\sqrt{\pi}\sqrt{-\frac{1}{t}}x^5{}_0F_8\left(\left(\frac{3}{5}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, -\frac{x^{10}}{10000000000t}\right)\right)}{32256\sqrt[2]{5}\sqrt[5]{t}\Gamma\left(-\frac{12}{5}\right)\Gamma\left(-\frac{4}{5}\right)} +
\end{aligned}$$

$$\begin{aligned}
& \frac{1}{96\pi^{5/2}t^{4/5}\Gamma(\frac{3}{10})}\sqrt{5}x\left(\frac{1}{25}(-4)\sqrt{\frac{2}{5-\sqrt{5}}}\pi^{5/2}\sqrt[10]{-\frac{1}{t}}\sqrt[5]{t}x^4\right. \\
& {}_0F_8\left(\frac{3}{5}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, -\frac{x^{10}}{10000000000t}\right) + \\
& \left.\frac{4\sqrt{\frac{2}{5(5-\sqrt{5})}}(\sqrt{5}-1)\pi^{5/2}\left(-\frac{1}{t}\right)^{3/10}t^{2/5}x^4{}_0F_8\left(\frac{3}{5}, \frac{4}{5}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, -\frac{x^{10}}{10000000000t}\right)}{5(\sqrt{5}+5)}\right) + \\
& \frac{x{}_0F_8\left(\frac{7}{10}, \frac{9}{10}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{8}{5}, -\frac{x^{10}}{10000000000t}\right)}{1440t^{4/5}\left(\frac{1}{x^2}\right)^{5/2}\Gamma(\frac{1}{5})} + \\
& \frac{(\sqrt{5}+1)\sqrt{\pi}\sqrt[10]{-\frac{1}{t}}x^7{}_0F_8\left(\frac{4}{5}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{8}{5}, \frac{17}{10}, -\frac{x^{10}}{10000000000t}\right)}{15120\ 2^{4/5}t^{4/5}\Gamma(-\frac{3}{5})\Gamma(\frac{1}{5})} - \\
& \frac{25(\sqrt{5}-1)\sqrt{\frac{\sqrt{5}+5}{\pi}}\left(-\frac{1}{t}\right)^{3/10}x^7\Gamma(\frac{19}{5}){}_0F_8\left(\frac{4}{5}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{8}{5}, \frac{17}{10}, -\frac{x^{10}}{10000000000t}\right)}{6096384\ 2^{3/10}t^{3/5}\Gamma(-\frac{3}{5})} + \\
& \frac{1}{96\pi^{5/2}t^{4/5}\Gamma(-\frac{9}{10})}\sqrt{5}x\left(\frac{1}{945}\sqrt{\frac{2}{5-\sqrt{5}}}(\sqrt{5}+1)\pi^{5/2}\sqrt{-\frac{1}{t}}t^{2/5}x^6\right. \\
& {}_0F_8\left(\frac{4}{5}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{8}{5}, \frac{17}{10}, -\frac{x^{10}}{10000000000t}\right) - \\
& \frac{2}{945}\sqrt{\frac{2}{5}}(5-\sqrt{5})\pi^{5/2}\left(-\frac{1}{t}\right)^{7/10}t^{3/5}x^6 \\
& {}_0F_8\left(\frac{4}{5}, \frac{11}{10}, \frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{8}{5}, \frac{17}{10}, -\frac{x^{10}}{10000000000t}\right) + \\
& \frac{\sqrt{\frac{1}{2}(5-\sqrt{5})}(\sqrt{5}+1)\left(-\frac{1}{t}\right)^{9/10}x^9\Gamma(-\frac{9}{10}){}_0F_8\left(\frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{8}{5}, \frac{17}{10}, \frac{9}{5}, \frac{19}{10}, -\frac{x^{10}}{10000000000t}\right)}{80640000\pi\sqrt[5]{t}} + \\
& \frac{(\sqrt{5}-1)\left(-\frac{1}{t}\right)^{7/10}x^9\Gamma(-\frac{4}{5}){}_0F_8\left(\frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{8}{5}, \frac{17}{10}, \frac{9}{5}, \frac{19}{10}, -\frac{x^{10}}{10000000000t}\right)}{6096384\ 2^{7/10}\sqrt{5}(5-\sqrt{5})\pi t^{2/5}\Gamma(-\frac{12}{5})} + \\
& \frac{\sqrt{5}x}{96\pi^{5/2}t^{4/5}\Gamma(-\frac{1}{10})} \\
& \left(-\frac{\sqrt{\frac{1}{10}(5-\sqrt{5})}\pi^{5/2}\left(-\frac{1}{t}\right)^{3/10}x^8{}_0F_8\left(\frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{8}{5}, \frac{17}{10}, \frac{9}{5}, \frac{19}{10}, -\frac{x^{10}}{10000000000t}\right)}{18900} + \right. \\
& \left.\frac{(\sqrt{5}+1)\pi^{5/2}\sqrt{\frac{1}{(\sqrt{5}-5)t}}\sqrt[5]{t}x^8{}_0F_8\left(\frac{6}{5}, \frac{13}{10}, \frac{7}{5}, \frac{3}{2}, \frac{8}{5}, \frac{17}{10}, \frac{9}{5}, \frac{19}{10}, -\frac{x^{10}}{10000000000t}\right)}{37800\sqrt{2}}\right)
\end{aligned}$$

B.8: Flux solution for $\beta = \frac{1}{9}$:

$$\begin{aligned}
F(x, t) = & \frac{1}{\sqrt[9]{t}}\left(\frac{x{}_0F_{16}\left(\frac{1}{18}, \frac{1}{6}, \frac{2}{9}, \frac{5}{18}, \frac{1}{3}, \frac{7}{18}, \frac{4}{9}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, -\frac{x^{18}}{39346408075296537575424t}\right)}{2\sqrt{x^2}\Gamma(\frac{8}{9})} + \right. \\
& \frac{x\sqrt{x^2}{}_0F_{16}\left(\frac{1}{6}, \frac{5}{18}, \frac{1}{3}, \frac{7}{18}, \frac{4}{9}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{9}, \frac{10}{9}, -\frac{x^{18}}{39346408075296537575424t}\right)}{4\sqrt[9]{t}\Gamma(\frac{7}{9})} - \\
& \frac{(-1)^{17/18}x^3\csc^2(\frac{\pi}{9})\Gamma(-\frac{4}{9})\Gamma(\frac{2}{9})}{324\ 2^{5/9}\pi^{3/2}\sqrt[6]{t}} \\
& {}_0F_{16}\left(\frac{2}{9}, \frac{1}{3}, \frac{7}{18}, \frac{4}{9}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, -\frac{x^{18}}{39346408075296537575424t}\right) - \\
& \frac{1^8\sqrt{-1}x^5\csc(\frac{\pi}{9})\csc(\frac{2\pi}{9})\Gamma(\frac{1}{9})\Gamma(\frac{7}{9})}{2880\ 2^{7/9}\pi^{3/2}t^{5/18}} \\
& {}_0F_{16}\left(\frac{1}{3}, \frac{4}{9}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, -\frac{x^{18}}{39346408075296537575424t}\right) - \\
& \frac{(-1)^{17/18}x^5\csc^2(\frac{\pi}{9})\csc^2(\frac{2\pi}{9})\Gamma(-\frac{4}{9})\Gamma(\frac{10}{9})}{10368\sqrt[3]{2}\pi t^{5/18}\Gamma(\frac{23}{18})} \\
& {}_0F_{16}\left(\frac{1}{3}, \frac{4}{9}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, -\frac{x^{18}}{39346408075296537575424t}\right) +
\end{aligned}$$

$$\begin{aligned}
& \frac{x(x^2)^{13/2} {}_0F_{16}\left(\begin{smallmatrix} 5 & 17 & 19 & 10 & 7 & 11 & 23 & 4 & 25 & 13 & 3 & 14 & 29 & 5 & 31 & 16 \\ 6 & 18 & 18 & 9 & 6 & 9 & 18 & 3 & 18 & 9 & 2 & 9 & 18 & 3 & 18 & 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{174356582400t^{7/9}\Gamma\left(\frac{1}{9}\right)} \\
& \left(\sqrt[18]{-1}\sqrt{\pi}x^{15} \cos\left(\frac{\pi}{9}\right) \cos\left(\frac{2\pi}{9}\right) \right. \\
& \left. {}_0F_{16}\left(\begin{smallmatrix} 8 & 19 & 10 & 7 & 11 & 23 & 4 & 25 & 13 & 3 & 14 & 29 & 5 & 31 & 16 & 11 \\ 9 & 18 & 9 & 6 & 9 & 18 & 3 & 18 & 9 & 2 & 9 & 18 & 3 & 18 & 9 & 6 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right) \right) \\
& \frac{3310050744000 {}_28/9t^{5/6}\Gamma\left(\frac{1}{9}\right)\Gamma\left(\frac{13}{9}\right)}{7202670418944000\sqrt[9]{2}t^{17/18}\Gamma\left(\frac{5}{9}\right)\Gamma\left(\frac{8}{9}\right)} + \\
& \frac{(-1)^{17/18}\sqrt{\pi}x^{17} \cos\left(\frac{\pi}{9}\right) \cos\left(\frac{2\pi}{9}\right) {}_0F_{16}\left(\begin{smallmatrix} 10 & 7 & 11 & 23 & 4 & 25 & 13 & 3 & 14 & 29 & 5 & 31 & 16 & 11 & 17 & 35 \\ 9 & 6 & 9 & 18 & 3 & 18 & 9 & 2 & 9 & 18 & 3 & 18 & 9 & 6 & 9 & 18 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{1296 {}_25/9\pi^{3/2}\sqrt[6]{t}} \\
& \frac{(-1)^{5/6}x^3 \csc^2\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right)\Gamma\left(-\frac{4}{9}\right)\Gamma\left(\frac{2}{9}\right)}{\sec\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 2 & 1 & 7 & 4 & 1 & 5 & 11 & 2 & 13 & 7 & 5 & 8 & 17 & 19 & 10 & 7 \\ 9 & 3 & 18 & 9 & 2 & 9 & 18 & 3 & 18 & 9 & 6 & 9 & 18 & 18 & 9 & 6 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)} + \\
& \frac{\sqrt[6]{-1}x^3 \csc\left(\frac{\pi}{9}\right) \sec\left(\frac{\pi}{18}\right)\Gamma\left(\frac{11}{9}\right) {}_0F_{16}\left(\begin{smallmatrix} 2 & 1 & 7 & 4 & 1 & 5 & 11 & 2 & 13 & 7 & 5 & 8 & 17 & 19 & 10 & 7 \\ 9 & 3 & 18 & 9 & 2 & 9 & 18 & 3 & 18 & 9 & 6 & 9 & 18 & 18 & 9 & 6 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{8 {}_22/3\sqrt{3}\sqrt[6]{t}\Gamma\left(\frac{1}{18}\right)\Gamma\left(\frac{8}{9}\right)} \\
& \frac{\sqrt[18]{-1}x^7 \cot\left(\frac{\pi}{9}\right) \cot\left(\frac{2\pi}{9}\right) \csc\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right)}{241920\sqrt{\pi}t^{7/18}} \\
& \sec\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 4 & 5 & 11 & 2 & 13 & 7 & 5 & 8 & 17 & 19 & 10 & 7 & 11 & 23 & 4 & 25 \\ 9 & 9 & 18 & 3 & 18 & 9 & 6 & 9 & 18 & 18 & 9 & 6 & 9 & 18 & 3 & 18 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right) + \\
& \frac{(-1)^{17/18}x^7 \cot\left(\frac{\pi}{9}\right) \cot\left(\frac{2\pi}{9}\right) \csc\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right)}{241920\sqrt{\pi}t^{7/18}} \\
& \sec\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 4 & 5 & 11 & 2 & 13 & 7 & 5 & 8 & 17 & 19 & 10 & 7 & 11 & 23 & 4 & 25 \\ 9 & 9 & 18 & 3 & 18 & 9 & 6 & 9 & 18 & 18 & 9 & 6 & 9 & 18 & 3 & 18 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right) - \\
& \frac{215 \sqrt[18]{-1}x^9 \cot\left(\frac{2\pi}{9}\right) \csc^2\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right)}{2902376448\sqrt{t}\Gamma\left(\frac{61}{18}\right)} \\
& \sec\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 5 & 2 & 13 & 7 & 5 & 8 & 17 & 19 & 10 & 7 & 11 & 23 & 4 & 25 & 13 & 3 \\ 9 & 3 & 18 & 9 & 6 & 9 & 18 & 18 & 9 & 6 & 9 & 18 & 3 & 18 & 9 & 2 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right) + \\
& \frac{(-1)^{17/18}x^{11} \cos\left(\frac{2\pi}{9}\right) \cot\left(\frac{\pi}{9}\right)\Gamma\left(\frac{13}{18}\right)}{239500800\sqrt{3}\pi t^{11/18}} \\
& \sec\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 2 & 7 & 5 & 8 & 17 & 19 & 10 & 7 & 11 & 23 & 4 & 25 & 13 & 3 & 14 & 29 \\ 3 & 9 & 6 & 9 & 18 & 18 & 9 & 6 & 9 & 18 & 3 & 18 & 9 & 2 & 9 & 18 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right) - \\
& \frac{\sqrt[18]{-1}x^{11} \cot\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right)}{1724405760t^{11/18}\Gamma\left(\frac{23}{18}\right)} \\
& \sec\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 2 & 7 & 5 & 8 & 17 & 19 & 10 & 7 & 11 & 23 & 4 & 25 & 13 & 3 & 14 & 29 \\ 3 & 9 & 6 & 9 & 18 & 18 & 9 & 6 & 9 & 18 & 3 & 18 & 9 & 2 & 9 & 18 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right) - \\
& \frac{\sqrt[18]{-1}x^{13} \cos\left(\frac{2\pi}{9}\right) \cot\left(\frac{\pi}{9}\right)}{96074035200\sqrt{3}t^{13/18}\Gamma\left(\frac{13}{6}\right)} \\
& \sec\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 7 & 8 & 17 & 19 & 10 & 7 & 11 & 23 & 4 & 25 & 13 & 3 & 14 & 29 & 5 & 31 \\ 9 & 9 & 18 & 18 & 9 & 6 & 9 & 18 & 3 & 18 & 9 & 2 & 9 & 18 & 3 & 18 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right) - \\
& \frac{ix^3 \csc^2\left(\frac{\pi}{9}\right)\Gamma\left(-\frac{4}{9}\right)\Gamma\left(\frac{2}{9}\right)}{2592 {}_25/9\pi^{3/2}\sqrt[6]{t}} \\
& \sec^2\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 2 & 1 & 7 & 4 & 1 & 5 & 11 & 2 & 13 & 7 & 5 & 8 & 17 & 19 & 10 & 7 \\ 9 & 3 & 18 & 9 & 2 & 9 & 18 & 3 & 18 & 9 & 6 & 9 & 18 & 18 & 9 & 6 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right) + \\
& \frac{215(-1)^{17/18}x^9 \cot\left(\frac{2\pi}{9}\right) \csc^2\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right)}{1934917632\sqrt{3}\sqrt{t}\Gamma\left(\frac{61}{18}\right)} \\
& \sec^2\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{smallmatrix} 5 & 2 & 13 & 7 & 5 & 8 & 17 & 19 & 10 & 7 & 11 & 23 & 4 & 25 & 13 & 3 \\ 9 & 3 & 18 & 9 & 6 & 9 & 18 & 18 & 9 & 6 & 9 & 18 & 3 & 18 & 9 & 2 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right) + \\
& \frac{x(x^2)^{3/2} \csc\left(\frac{\pi}{18}\right)}{384t^{2/9}\Gamma\left(\frac{2}{3}\right)} \\
& \sec\left(\frac{\pi}{9}\right) \sec\left(\frac{2\pi}{9}\right) {}_0F_{16}\left(\begin{smallmatrix} 5 & 7 & 4 & 1 & 5 & 11 & 2 & 13 & 7 & 5 & 8 & 17 & 19 & 10 & 7 & 11 \\ 18 & 18 & 9 & 2 & 9 & 18 & 3 & 18 & 9 & 6 & 9 & 18 & 18 & 9 & 6 & 9 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right) + \\
& \frac{x(x^2)^{11/2} \csc\left(\frac{\pi}{18}\right)}{10597171200t^{2/3}\Gamma\left(-\frac{16}{9}\right)} \\
& \sec\left(\frac{\pi}{9}\right) \sec\left(\frac{2\pi}{9}\right) {}_0F_{16}\left(\begin{smallmatrix} 13 & 5 & 8 & 17 & 19 & 10 & 7 & 11 & 23 & 4 & 25 & 13 & 3 & 14 & 29 & 5 \\ 18 & 6 & 9 & 18 & 18 & 9 & 6 & 9 & 18 & 3 & 18 & 9 & 2 & 9 & 18 & 3 \end{smallmatrix}; -\frac{x^{18}}{39346408075296537575424t}\right) -
\end{aligned}$$

$$\begin{aligned}
& \frac{8(-1)^{5/6} x \cos\left(\frac{\pi}{9}\right) \cos\left(\frac{2\pi}{9}\right) \Gamma\left(\frac{7}{6}\right)}{\sqrt{3} \pi^{18/5} t} \\
& \sin\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{matrix} \cdot \\ \frac{1}{9}, \frac{2}{9}, \frac{5}{18}, \frac{1}{3}, \frac{7}{18}, \frac{4}{9}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18} \end{matrix}; -\frac{x^{18}}{39346408075296537575424t}\right) - \\
& \frac{\sqrt[6]{-1} x^5 \csc\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right)}{280 \sqrt{3} t^{5/18} \Gamma\left(-\frac{7}{18}\right)} \\
& \sin\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{matrix} \cdot \\ \frac{1}{3}, \frac{4}{9}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18} \end{matrix}; -\frac{x^{18}}{39346408075296537575424t}\right) + \\
& \frac{i x^5 \sin\left(\frac{\pi}{18}\right) \csc\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right) \Gamma\left(\frac{5}{9}\right) {}_0F_{16}\left(\begin{matrix} \cdot \\ \frac{1}{3}, \frac{4}{9}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18} \end{matrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{5184 \sqrt[3]{2} \sqrt{3} t^{5/18} \Gamma\left(\frac{8}{9}\right) \Gamma\left(\frac{23}{18}\right)} - \\
& \frac{(-1)^{5/18} x^{11} \cot\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right) \Gamma\left(\frac{13}{18}\right)}{239500800 \sqrt{3} \pi t^{11/18}} \\
& \sin\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{matrix} \cdot \\ \frac{2}{3}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3}, \frac{25}{18}, \frac{13}{9}, \frac{3}{2}, \frac{14}{9}, \frac{29}{18} \end{matrix}; -\frac{x^{18}}{39346408075296537575424t}\right) + \\
& \frac{(-1)^{7/18} x^{11} \sin\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{matrix} \cdot \\ \frac{2}{3}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3}, \frac{25}{18}, \frac{13}{9}, \frac{3}{2}, \frac{14}{9}, \frac{29}{18} \end{matrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{215550720 \sqrt{3} t^{11/18} \Gamma\left(\frac{23}{18}\right)} + \\
& \frac{\sqrt[6]{-1} x^{11} \cot\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right)}{431101440 \sqrt{3} t^{11/18} \Gamma\left(\frac{23}{18}\right)} \\
& \sin\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{matrix} \cdot \\ \frac{2}{3}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3}, \frac{25}{18}, \frac{13}{9}, \frac{3}{2}, \frac{14}{9}, \frac{29}{18} \end{matrix}; -\frac{x^{18}}{39346408075296537575424t}\right) - \\
& \frac{i \sqrt{\pi} x^{11} \sin\left(\frac{\pi}{18}\right) \cos\left(\frac{\pi}{9}\right) {}_0F_{16}\left(\begin{matrix} \cdot \\ \frac{2}{3}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3}, \frac{25}{18}, \frac{13}{9}, \frac{3}{2}, \frac{14}{9}, \frac{29}{18} \end{matrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{223534080 {}^{24/9} t^{11/18} \Gamma\left(-\frac{16}{9}\right) \Gamma\left(\frac{14}{9}\right)} - \\
& \frac{i \sqrt{\pi} x^{13} \sin\left(\frac{\pi}{18}\right) \cos\left(\frac{\pi}{9}\right) \cos\left(\frac{2\pi}{9}\right) {}_0F_{16}\left(\begin{matrix} \cdot \\ \frac{7}{9}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3}, \frac{25}{18}, \frac{13}{9}, \frac{3}{2}, \frac{14}{9}, \frac{29}{18}, \frac{5}{3}, \frac{31}{18} \end{matrix}; -\frac{x^{18}}{39346408075296537575424t}\right)}{3113510400 {}^{22/3} t^{13/18} \Gamma\left(-\frac{2}{3}\right)^2} + \\
& \frac{(-1)^{7/18} x^{13} \cot\left(\frac{2\pi}{9}\right) \csc\left(\frac{\pi}{9}\right)}{96074035200 \sqrt{3} t^{13/18} \Gamma\left(\frac{13}{6}\right)} \\
& \sin\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{matrix} \cdot \\ \frac{7}{9}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3}, \frac{25}{18}, \frac{13}{9}, \frac{3}{2}, \frac{14}{9}, \frac{29}{18}, \frac{5}{3}, \frac{31}{18} \end{matrix}; -\frac{x^{18}}{39346408075296537575424t}\right) - \\
& \frac{(-1)^{5/18} x^{13} \cot\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right)}{96074035200 \sqrt{3} t^{13/18} \Gamma\left(\frac{13}{6}\right)} \\
& \sin\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{matrix} \cdot \\ \frac{7}{9}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3}, \frac{25}{18}, \frac{13}{9}, \frac{3}{2}, \frac{14}{9}, \frac{29}{18}, \frac{5}{3}, \frac{31}{18} \end{matrix}; -\frac{x^{18}}{39346408075296537575424t}\right) + \\
& \frac{\left((-1)^{7/18} x^{15} \cot\left(\frac{2\pi}{9}\right) \csc\left(\frac{\pi}{9}\right) \Gamma\left(\frac{26}{9}\right)\right)}{\sin\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{matrix} \cdot \\ \frac{8}{9}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3}, \frac{25}{18}, \frac{13}{9}, \frac{3}{2}, \frac{14}{9}, \frac{29}{18}, \frac{5}{3}, \frac{31}{18}, \frac{16}{9}, \frac{11}{6} \end{matrix}; -\frac{x^{18}}{39346408075296537575424t}\right)} + \\
& \frac{6586804224000 {}^{28/9} \sqrt{3} \pi t^{5/6} \Gamma\left(\frac{4}{9}\right)}{2134124568576000 \sqrt{3} \pi t^{17/18}} \\
& \frac{(-1)^{11/18} x^{17} \cot\left(\frac{2\pi}{9}\right) \csc\left(\frac{\pi}{9}\right) \Gamma\left(\frac{19}{18}\right)}{2134124568576000 \sqrt{3} \pi t^{17/18}} \\
& \sin\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{matrix} \cdot \\ \frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3}, \frac{25}{18}, \frac{13}{9}, \frac{3}{2}, \frac{14}{9}, \frac{29}{18}, \frac{5}{3}, \frac{31}{18}, \frac{16}{9}, \frac{11}{6}, \frac{17}{9}, \frac{35}{18} \end{matrix}; -\frac{x^{18}}{39346408075296537575424t}\right) + \\
& \frac{(-1)^{7/18} x^3 \csc\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right)}{5 \sqrt{3} \sqrt[6]{t} \Gamma\left(-\frac{5}{18}\right)} \\
& \sin^2\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{matrix} \cdot \\ \frac{2}{9}, \frac{1}{3}, \frac{7}{18}, \frac{4}{9}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6} \end{matrix}; -\frac{x^{18}}{39346408075296537575424t}\right) + \\
& \frac{(-1)^{17/18} x^{13} \cos\left(\frac{\pi}{9}\right) \cos\left(\frac{2\pi}{9}\right)}{36027763200 t^{13/18} \Gamma\left(\frac{13}{6}\right)} \\
& \sin\left(\frac{\pi}{9}\right) {}_0F_{16}\left(\begin{matrix} \cdot \\ \frac{7}{9}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3}, \frac{25}{18}, \frac{13}{9}, \frac{3}{2}, \frac{14}{9}, \frac{29}{18}, \frac{5}{3}, \frac{31}{18} \end{matrix}; -\frac{x^{18}}{39346408075296537575424t}\right) + \\
& \frac{x(x^2)^{5/2} \csc\left(\frac{\pi}{18}\right)}{2880 \sqrt[3]{t} \Gamma\left(\frac{5}{9}\right)} \\
& \sin\left(\frac{\pi}{9}\right) \sec\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\begin{matrix} \cdot \\ \frac{7}{18}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3} \end{matrix}; -\frac{x^{18}}{39346408075296537575424t}\right) + \\
& \frac{x(x^2)^{7/2} \csc\left(\frac{\pi}{18}\right) \csc\left(\frac{2\pi}{9}\right)}{322560 t^{4/9} \Gamma\left(\frac{4}{9}\right)}
\end{aligned}$$

$$\begin{aligned}
& \sin\left(\frac{\pi}{9}\right) \sec\left(\frac{2\pi}{9}\right) {}_0F_{16}\left(\left(\frac{1}{2}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3}, \frac{25}{18}, \frac{13}{9}\right), -\frac{x^{18}}{39346408075296537575424t}\right) - \\
& \frac{x(x^2)^{9/2} \csc\left(\frac{\pi}{18}\right) \csc\left(\frac{2\pi}{9}\right)}{19353600t^{5/9}\Gamma\left(-\frac{2}{3}\right)} \\
& \sin\left(\frac{\pi}{9}\right) \sec\left(\frac{2\pi}{9}\right) {}_0F_{16}\left(\left(\frac{11}{18}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3}, \frac{25}{18}, \frac{13}{9}, \frac{3}{2}, \frac{14}{9}\right), -\frac{x^{18}}{39346408075296537575424t}\right) + \\
& \frac{(-1)^{11/18} x^{11} \sin\left(\frac{\pi}{18}\right) \sin\left(\frac{\pi}{9}\right) {}_0F_{16}\left(\left(\frac{2}{3}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3}, \frac{25}{18}, \frac{13}{9}, \frac{3}{2}, \frac{14}{9}, \frac{29}{18}\right), -\frac{x^{18}}{39346408075296537575424t}\right)}{323326080t^{11/18}\Gamma\left(\frac{23}{18}\right)} \\
& \frac{(-1)^{5/6} x^{11} \sin\left(\frac{\pi}{18}\right) \sin\left(\frac{\pi}{9}\right) \cos\left(\frac{\pi}{9}\right) {}_0F_{16}\left(\left(\frac{2}{3}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3}, \frac{25}{18}, \frac{13}{9}, \frac{3}{2}, \frac{14}{9}, \frac{29}{18}\right), -\frac{x^{18}}{39346408075296537575424t}\right)}{161663040t^{11/18}\Gamma\left(\frac{23}{18}\right)} \\
& \frac{(-1)^{13/18} x^{13} \cos\left(\frac{\pi}{9}\right)}{36027763200t^{13/18}\Gamma\left(\frac{13}{6}\right)} \\
& \sin\left(\frac{\pi}{18}\right) \sin\left(\frac{\pi}{9}\right) {}_0F_{16}\left(\left(\frac{7}{9}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3}, \frac{25}{18}, \frac{13}{9}, \frac{3}{2}, \frac{14}{9}, \frac{29}{18}, \frac{5}{3}, \frac{31}{18}\right), -\frac{x^{18}}{39346408075296537575424t}\right) + \\
& \frac{(-1)^{11/18} x^{13} \cos\left(\frac{2\pi}{9}\right)}{36027763200t^{13/18}\Gamma\left(\frac{13}{6}\right)} \\
& \sin\left(\frac{\pi}{18}\right) \sin\left(\frac{2\pi}{9}\right) {}_0F_{16}\left(\left(\frac{7}{9}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3}, \frac{25}{18}, \frac{13}{9}, \frac{3}{2}, \frac{14}{9}, \frac{29}{18}, \frac{5}{3}, \frac{31}{18}\right), -\frac{x^{18}}{39346408075296537575424t}\right) + \\
& \frac{1}{847372990464000t^{5/6}\Gamma\left(\frac{19}{18}\right)} \\
& x^{15} {}_0F_{16}\left(\left(\frac{8}{9}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3}, \frac{25}{18}, \frac{13}{9}, \frac{3}{2}, \frac{14}{9}, \frac{29}{18}, \frac{5}{3}, \frac{31}{18}, \frac{16}{9}, \frac{11}{6}\right), -\frac{x^{18}}{39346408075296537575424t}\right) \\
& (-16(-1)^{13/18} \cos\left(\frac{\pi}{9}\right) + 8(-1)^{11/18} \sqrt{3} \cot\left(\frac{2\pi}{9}\right) - \\
& 2i\sqrt{3} \cot\left(\frac{\pi}{9}\right) \cot\left(\frac{2\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right) + 4\sqrt[6]{-1} \sqrt{3} \cot\left(\frac{\pi}{9}\right) \cot\left(\frac{2\pi}{9}\right) \sec\left(\frac{\pi}{18}\right) - \\
& 32(-1)^{5/6} \sin\left(\frac{\pi}{9}\right) \cos\left(\frac{\pi}{9}\right) \cot\left(\frac{2\pi}{9}\right) + 3(-1)^{5/18} \cot\left(\frac{\pi}{9}\right) \csc^2\left(\frac{2\pi}{9}\right) \sec\left(\frac{\pi}{18}\right)) \sin\left(\frac{2\pi}{9}\right) + \\
& (\sin\left(\frac{\pi}{9}\right) (32\sqrt[6]{-1} x^{17} \cos\left(\frac{\pi}{9}\right) \cos\left(\frac{2\pi}{9}\right) \\
& {}_0F_{16}\left(\left(\frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3}, \frac{25}{18}, \frac{13}{9}, \frac{3}{2}, \frac{14}{9}, \frac{29}{18}, \frac{5}{3}, \frac{31}{18}, \frac{16}{9}, \frac{11}{6}, \frac{17}{9}, \frac{35}{18}\right), -\frac{x^{18}}{39346408075296537575424t}\right) - \\
& 8(-1)^{13/18} \sqrt{3} x^{17} \cot\left(\frac{\pi}{9}\right) \\
& {}_0F_{16}\left(\left(\frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3}, \frac{25}{18}, \frac{13}{9}, \frac{3}{2}, \frac{14}{9}, \frac{29}{18}, \frac{5}{3}, \frac{31}{18}, \frac{16}{9}, \frac{11}{6}, \frac{17}{9}, \frac{35}{18}\right), -\frac{x^{18}}{39346408075296537575424t}\right) - \\
& 2i\sqrt{3} x^{17} \cot\left(\frac{\pi}{9}\right) \cot\left(\frac{2\pi}{9}\right) \csc\left(\frac{\pi}{9}\right) \\
& {}_0F_{16}\left(\left(\frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3}, \frac{25}{18}, \frac{13}{9}, \frac{3}{2}, \frac{14}{9}, \frac{29}{18}, \frac{5}{3}, \frac{31}{18}, \frac{16}{9}, \frac{11}{6}, \frac{17}{9}, \frac{35}{18}\right), -\frac{x^{18}}{39346408075296537575424t}\right) - \\
& 2(-1)^{5/18} \sqrt{3} x^{17} \cot\left(\frac{\pi}{9}\right) \csc\left(\frac{\pi}{9}\right) \\
& \sec\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\left(\frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3}, \frac{25}{18}, \frac{13}{9}, \frac{3}{2}, \frac{14}{9}, \frac{29}{18}, \frac{5}{3}, \frac{31}{18}, \frac{16}{9}, \frac{11}{6}, \frac{17}{9}, \frac{35}{18}\right), -\frac{x^{18}}{39346408075296537575424t}\right) + \\
& 3(-1)^{7/18} x^{17} \cot\left(\frac{2\pi}{9}\right) \csc^2\left(\frac{\pi}{9}\right) \\
& \sec\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\left(\frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3}, \frac{25}{18}, \frac{13}{9}, \frac{3}{2}, \frac{14}{9}, \frac{29}{18}, \frac{5}{3}, \frac{31}{18}, \frac{16}{9}, \frac{11}{6}, \frac{17}{9}, \frac{35}{18}\right), -\frac{x^{18}}{39346408075296537575424t}\right) + \\
& 32(-1)^{5/6} x^{17} \cos\left(\frac{2\pi}{9}\right) \cot\left(\frac{\pi}{9}\right) \\
& \frac{\sin\left(\frac{2\pi}{9}\right) {}_0F_{16}\left(\left(\frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3}, \frac{25}{18}, \frac{13}{9}, \frac{3}{2}, \frac{14}{9}, \frac{29}{18}, \frac{5}{3}, \frac{31}{18}, \frac{16}{9}, \frac{11}{6}, \frac{17}{9}, \frac{35}{18}\right), -\frac{x^{18}}{39346408075296537575424t}\right))}{244043421253632000t^{17/18}\Gamma\left(\frac{35}{18}\right)} + \\
& \frac{(-1)^{11/18} x^3 \csc^2\left(\frac{\pi}{9}\right) \csc^2\left(\frac{2\pi}{9}\right) \Gamma\left(-\frac{4}{9}\right) \Gamma\left(\frac{2}{9}\right)}{432 \cdot 2^{5/9} \sqrt{3} \pi^{3/2} \sqrt[9]{t}} \\
& \tan\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\left(\frac{2}{9}, \frac{1}{3}, \frac{7}{18}, \frac{4}{9}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}\right), -\frac{x^{18}}{39346408075296537575424t}\right) - \\
& \frac{(-1)^{5/18} x^5 \csc\left(\frac{\pi}{9}\right) \Gamma\left(\frac{7}{18}\right)}{1440\sqrt{3} \pi t^{5/18}} \\
& \tan\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\left(\frac{1}{3}, \frac{4}{9}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}\right), -\frac{x^{18}}{39346408075296537575424t}\right) - \\
& ((-1)^{5/6} x^5 \csc^2\left(\frac{\pi}{9}\right) \csc^2\left(\frac{2\pi}{9}\right) \Gamma\left(\frac{1}{9}\right)
\end{aligned}$$

$$\begin{aligned}
& \tan\left(\frac{\pi}{18}\right) \sec\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\left(\frac{5}{9}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}, \frac{11}{9}, \frac{23}{18}, \frac{4}{3}, \frac{25}{18}, \frac{13}{9}, \frac{3}{2}\right); -\frac{x^{18}}{39346408075296537575424t}\right) + \\
& \frac{x^3 \Gamma\left(\frac{23}{18}\right) {}_0F_{16}\left(\left(\frac{2}{9}, \frac{1}{3}, \frac{7}{18}, \frac{4}{9}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}, \frac{10}{9}, \frac{7}{6}\right); -\frac{x^{18}}{39346408075296537575424t}\right)}{480\pi^{\frac{6}{t}}} \\
& 3(-1)^{13/18} \tan\left(\frac{\pi}{18}\right) \csc^3\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right) - 4 \sqrt[18]{-1} \sqrt{3} \csc^2\left(\frac{\pi}{9}\right) + \\
& \frac{1}{108 \sqrt[18]{t} \Gamma\left(\frac{11}{6}\right)} 5 \csc\left(\frac{\pi}{9}\right) \csc\left(\frac{2\pi}{9}\right) (2(-1)^{13/18} \sqrt{3} x \cos\left(\frac{\pi}{9}\right) \\
& \sin\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\left(\frac{1}{9}, \frac{2}{9}, \frac{5}{18}, \frac{1}{3}, \frac{7}{18}, \frac{4}{9}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}\right); -\frac{x^{18}}{39346408075296537575424t}\right) - \\
& 2(-1)^{11/18} \sqrt{3} x \cos\left(\frac{2\pi}{9}\right) \\
& \sin\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\left(\frac{1}{9}, \frac{2}{9}, \frac{5}{18}, \frac{1}{3}, \frac{7}{18}, \frac{4}{9}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}\right); -\frac{x^{18}}{39346408075296537575424t}\right) - \\
& 16 \sqrt[18]{-1} x \cos\left(\frac{\pi}{9}\right) \cos\left(\frac{2\pi}{9}\right) \\
& \sin^2\left(\frac{\pi}{9}\right) \sin\left(\frac{2\pi}{9}\right) \\
& {}_0F_{16}\left(\left(\frac{1}{9}, \frac{2}{9}, \frac{5}{18}, \frac{1}{3}, \frac{7}{18}, \frac{4}{9}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}\right); -\frac{x^{18}}{39346408075296537575424t}\right) + \\
& 16(-1)^{5/18} x \cos\left(\frac{\pi}{9}\right) \\
& \sin\left(\frac{\pi}{18}\right) \sin^2\left(\frac{\pi}{9}\right) \sin\left(\frac{2\pi}{9}\right) \\
& {}_0F_{16}\left(\left(\frac{1}{9}, \frac{2}{9}, \frac{5}{18}, \frac{1}{3}, \frac{7}{18}, \frac{4}{9}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}\right); -\frac{x^{18}}{39346408075296537575424t}\right) + \\
& 16(-1)^{17/18} x \cos\left(\frac{\pi}{9}\right) \cos\left(\frac{2\pi}{9}\right) \\
& \sin\left(\frac{\pi}{9}\right) \sin^2\left(\frac{2\pi}{9}\right) {}_0F_{16}\left(\left(\frac{1}{9}, \frac{2}{9}, \frac{5}{18}, \frac{1}{3}, \frac{7}{18}, \frac{4}{9}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}\right); -\frac{x^{18}}{39346408075296537575424t}\right) + \\
& 3ix \cos\left(\frac{\pi}{9}\right) \cos\left(\frac{2\pi}{9}\right) \\
& \tan\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\left(\frac{1}{9}, \frac{2}{9}, \frac{5}{18}, \frac{1}{3}, \frac{7}{18}, \frac{4}{9}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}\right); -\frac{x^{18}}{39346408075296537575424t}\right) - \\
& 2(-1)^{7/18} \sqrt{3} x \cos\left(\frac{2\pi}{9}\right) \\
& \sin\left(\frac{2\pi}{9}\right) \tan\left(\frac{\pi}{18}\right) {}_0F_{16}\left(\left(\frac{1}{9}, \frac{2}{9}, \frac{5}{18}, \frac{1}{3}, \frac{7}{18}, \frac{4}{9}, \frac{1}{2}, \frac{5}{9}, \frac{11}{18}, \frac{2}{3}, \frac{13}{18}, \frac{7}{9}, \frac{5}{6}, \frac{8}{9}, \frac{17}{18}, \frac{19}{18}\right); -\frac{x^{18}}{39346408075296537575424t}\right) \Big) \Big) \Big)
\end{aligned}$$

4. The stability terms

The breakthrough curves and the flux plots for cases, $\beta = \frac{4}{5}, \frac{2}{5}, \frac{1}{5}$, and $\frac{1}{9}$ were derived by introducing the stability term $\mu(s, t)$ in $\frac{C_\beta(x, t)}{C_0} = \int_0^\infty \mathcal{E}_\beta(s, t) C_1(x, s) \mu(s, t) ds$. Here $\mu(s, t) = \exp\left(\frac{as^b}{\gamma \pi b^b t^a}\right)$, allows (a) numerical integration and derivation of the BTC and (b) preserves the initial arrival and tailing features of the anomalous diffusion (see fig. 1). The coefficients a and b are derived from the numerator and denominator of a selected exponent β , and the value of γ controls the influence of the term on the subordination integration. The stability terms for the selected β exponents are $\exp\left(\frac{4s^5}{\gamma \pi 5^5 t^4}\right)$, $\exp\left(\frac{2s^5}{\gamma \pi 5^5 t^2}\right)$, $\exp\left(\frac{s^5}{\gamma \pi 5^5 t}\right)$, and $\exp\left(\frac{s^9}{\gamma \pi 9^9 t}\right)$ respectively. The linear and residual BTCs for the selected new β values were estimated considering the $\gamma = 100$ in the present work. Note that the exponential form of the stability term truncates the $\mathcal{E}_\beta$, and the resulting BTC and flux plots can be evaluated for finite time intervals. The BTC of 3/4 can be assessed until $t = 10^{10}$ days, respectively. The parameter γ in $\mu(s, t)$ controls the influence of the stability term on the subordination integration. The BTCs and flux plots were evaluated by setting $\gamma = 100$ to ensure minimal impact of the stability term on the subordination

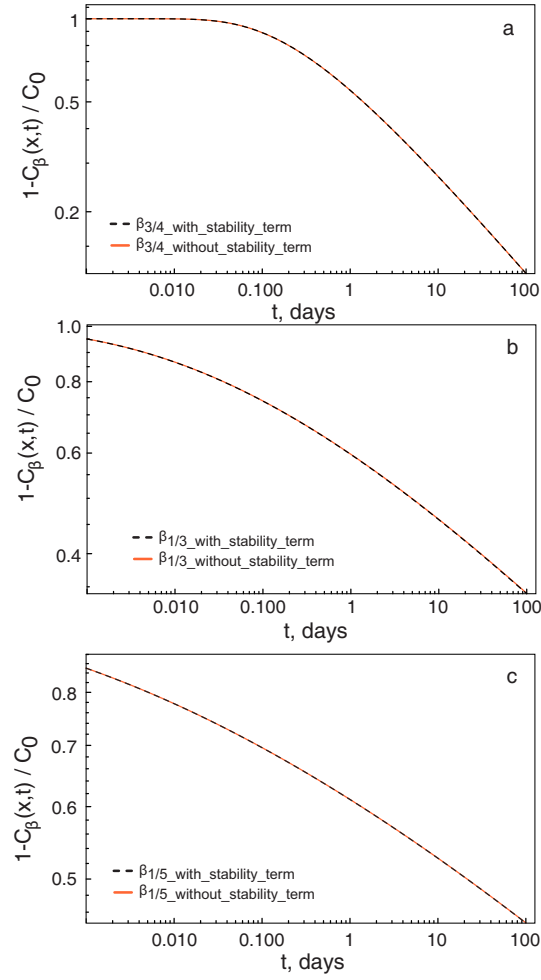


Figure 1. Residual BTCs $\log_{10}(1 - C/C_0)$ vs. $\log_{10}(t)$ of $\beta = \frac{3}{4}$, $\beta = \frac{1}{3}$, and $\beta = \frac{1}{5}$ obtained through the NIntegrate method with and without involving stability term. The plots shows that in each case, including the stability term does not change the initial arrival times and long-time tails of the residual BTCs.

integration.