Supplementary material for Combined effect of rheology and confining boundaries on spreading of porous gravity currents

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1. The analysis of the exponents

In the following figures, the behaviour of the exponents F_2, F_3, and $F_3 - F_2$ is depicted as a function of β for $n = 0.5, 1, 1.5$ and as a function of n for $\beta = 0.5, 1, 2$; results for different values of α are shown.

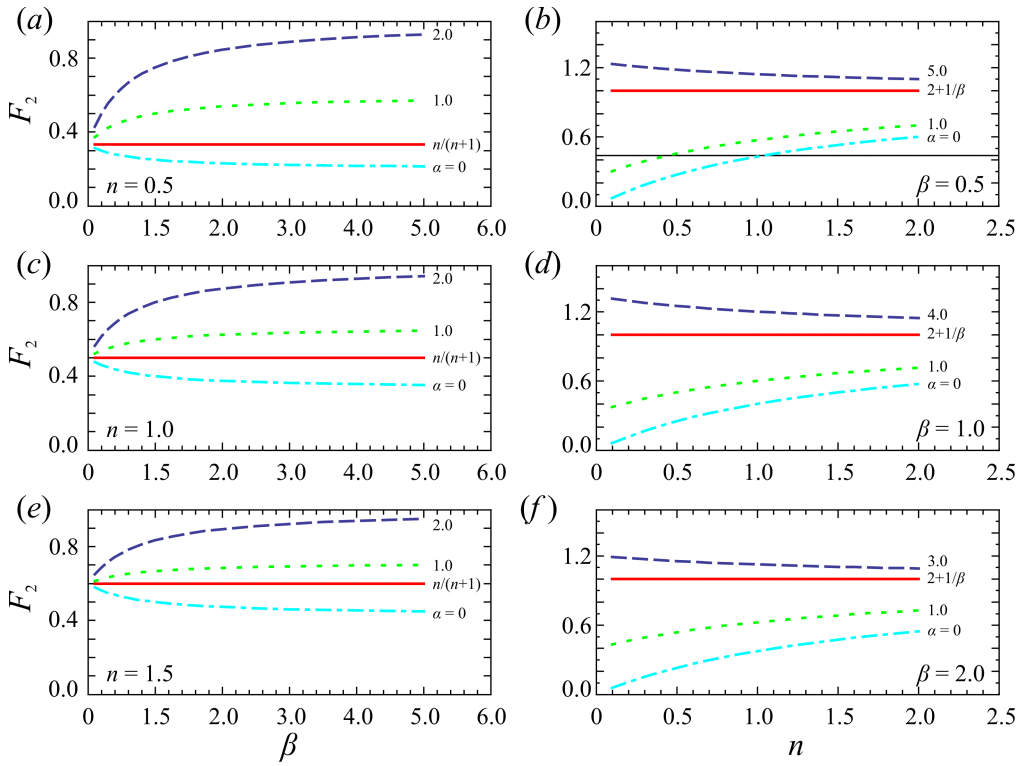

Figure S.1: (*a*)-(*f*) The value of the time exponents F_2 for a current with length $\propto T^{F_2}$ and volume $\propto T^{\alpha}$ in a porous channel with cross sectional shape parameterized by β. Results are shown for F_2 as a function of β for $n = 0.5, 1, and 1.5$ and as a function of n for $\beta = 0.5, 1, and 2$, and for different values of α.

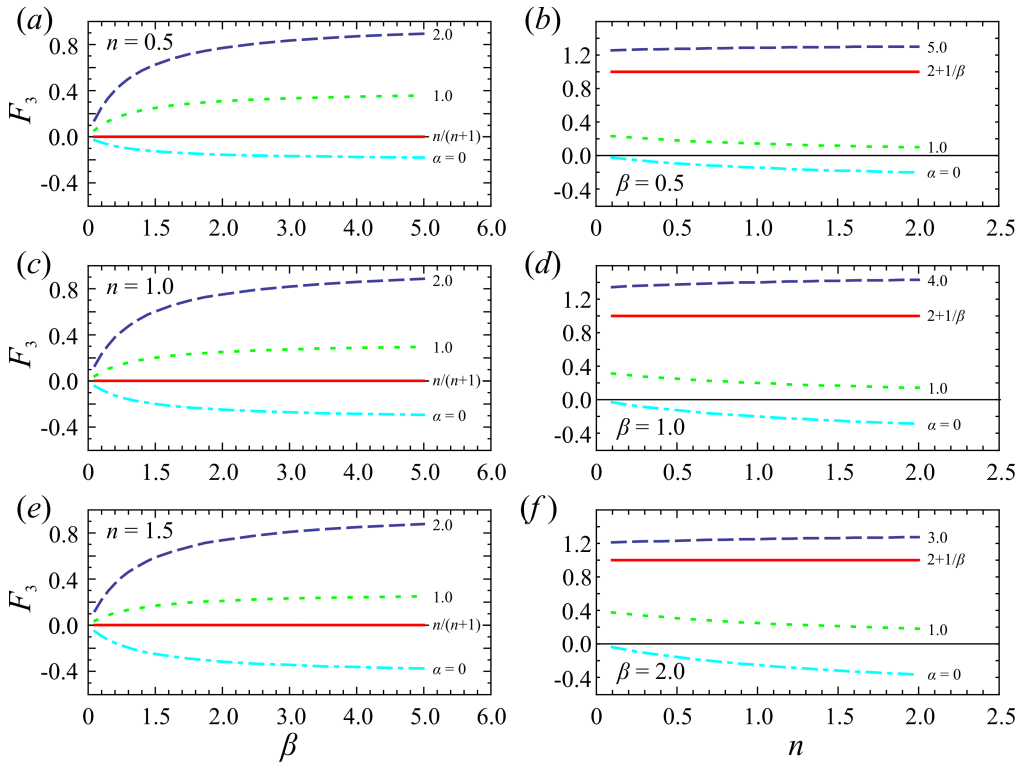

Figure S.2: (*a*)-(*f*) The value of the time exponents F_3 for a current with height $\propto T^{F_3}$ and volume $\propto T^{\alpha}$ in a porous channel with cross sectional shape parameterized by β. Results are shown for F_3 as a function of β for $n = 0.5, 1, and 1.5$ and as a function of n for $\beta = 0.5, 1, and 2$, and for different values of α.

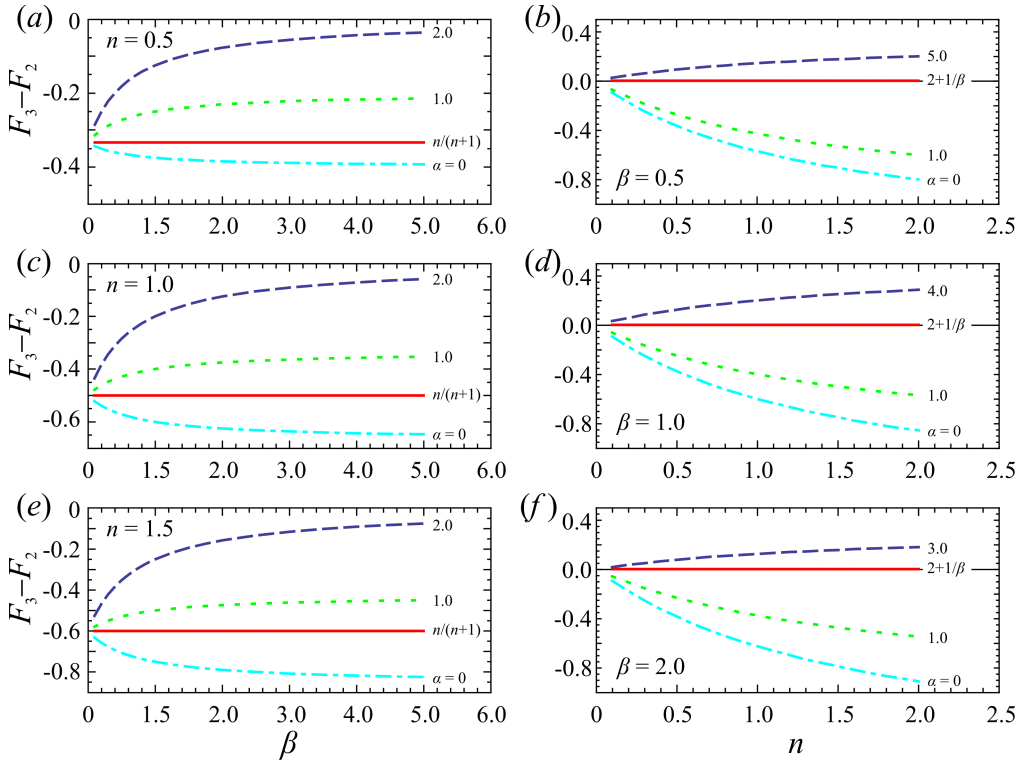

Figure S.3: (*a*)-(*f*) The value of the time exponents $F_3 - F_2$ for a current with aspect ratio/mean free-surface gradient $\propto T^{F_3-F2}$, and volume $\propto T^{\alpha}$ in a porous channel with cross sectional shape parameterized by β. Results are shown for $F_3 - F_2$ as a function of β for $n = 0.5, 1, and 1.5$ and as a function of n for $\beta = 0.5, 1, and 2$, and for different values of α.