

| Forcing parameters | | Reacting parameters | | Timescales | |
|-------------------------|--|---------------------------|---|---------------------------|------------------------------|
| Pulse frequency | $F_{\text{pulse}} \text{ (1 T}^{-1}\text{)}$ | Fluvial export velocity | $U_{\text{fluv}} \text{ (L T}^{-1}\text{)}$ | Simulation time | $T_{\text{sim}} \text{ (T)}$ |
| Pulse magnitude | $M_{\text{pulse}} \text{ (L}^3\text{)}$ | Channel slope | $S \text{ (L L}^{-1}\text{)}$ | Pulse period | $T_{\text{pp}} \text{ (T)}$ |
| Pulse grain size distr. | $\text{GSD}_{\text{pulse}} \text{ (L)}$ | Surface grain size distr. | $\text{GSD}_{\text{fluv}} \text{ (L)}$ | | |
| Water discharge | $Q_{\text{w}} \text{ (L}^3 \text{ T}^{-1}\text{)}$ | | | Derived from simulations: | |
| Derived parameters: | | | | Fluvial evacuation time | $T_{\text{fe}} \text{ (T)}$ |
| Virtual pulse velocity | $U_{\text{pulse}} \text{ (L T}^{-1}\text{)}$ | | | Armouring time | $T_{\text{ar}} \text{ (T)}$ |