Symbol	Dimensions (L: length, H: height, T: time)	Description	Definition or first use
(x, y)	L	Horizontal coordinates	Eq. (1)
z	H	Elevation	Eq. (1)
t	T	Time	Eq. (1)
K	T^{-1}	Incision coefficient	Eq. (1)
D	$\mathrm{L}^2\,\mathrm{T}^{-1}$	Diffusion coefficient	Eq. (1)
U	$\mathrm{H}\,\mathrm{T}^{-1}$	Uplift rate	Eq. (1)
A	L^2	Drainage area	Eq. (1)
$\lvert\nabla z\rvert$	$\mathrm{H}\,\mathrm{L}^{-1}$	Topographic slope	Eq. (1)
$\nabla^2 z$	$\mathrm{H}\,\mathrm{L}^{-2}$	Curvature	Eq. (1)
m	–	Drainage area exponent	Eq. (A1)
n	–	Slope exponent	Eq. (A1)
ε	$\mathrm{H}\,\mathrm{T}^{-1}$	Steady-state threshold	Eq. (2)
l_c	L	Characteristic length	Eq. (3)
h_c	H	Characteristic height	Eq. (4)
t_c	T	Characteristic time	Eq. (5)
(x^*, y^*), z^*, ∇^*, etc.	–	Dimensionless variables, operators, etc.	Eq. (16)
$\boldsymbol{i}$, $\boldsymbol{j}$	L	Unit vectors	Eq. (9)
G_c	$\mathrm{H}\,\mathrm{L}^{-1}$	Characteristic gradient	Eq. (11)
κ_c	$\mathrm{H}\,\mathrm{L}^{-2}$	Characteristic curvature	Eq. (13)
A_c	L^2	Characteristic area	Eq. (15)
K', x', l_c', etc.		Parameters, variables, scales, etc., of the second of a pair of rescaled landscapes	Eq. (18)
u_c	$\mathrm{L}\,\mathrm{T}^{-1}$	Characteristic horizontal velocity	Eq. (20)
h_I	H	Incision height	Eq. (21)
h_D	H	Diffusion height	Eq. (22)
k_s	H	Steepness index	$k_\mathrm{s} = A^{m/n}\,\lvert\nabla z\rvert$
κ_thr	$\mathrm{H}\,\mathrm{L}^{-2}$	Curvature threshold for valley definition	Sect. 4.1.4
h_thr	H	Incision height threshold for valley definition	$h_\mathrm{thr} = l_\mathrm{c}^2\,\kappa_\mathrm{thr} + h_\mathrm{c}$
Pe	–	Péclet number	Eq. (36)
c	$\mathrm{L}\,\mathrm{T}^{-1}$	Kinematic wave celerity	$c = K\sqrt{A}$
l	L	Length scale	Sect. 4.2
t_I	T	Incision time	Eq. (34)
t_D	T	Diffusion time	Eq. (35)
p	–	Exponent of drainage area in scaling relationship with flow path length	Sect. 4.2.3