Contents

List of figures

List of tables

List of symbols

a	Area draining through a point (Beven and Kirkby 1979)
A	River channel cross sectional area
c	Active layer sediment transfer factor (Hoey and Ferguson, 1994)
d	Water depth
D	Grain size
D	Detachment rate (Kirkby 1992)
D_o	Detachment rate parameter (Kirkby 1992)
Dx	Horizontal spacing
e	Cell elevation
E	Amount transferred between grainsize proportions
E	Proportion of material to be moved to active layer (Hoey and Ferguson, 1994)
f	Proportion of sediment inactive layer (Hoey and Ferguson, 1994)
F	Grainsize fraction
F	Active layer proportion (Hoey and Ferguson, 1994)
g	Gravity
h	Travel distance (Kirkby 1992)
$_i$	Neighbouring cell (Murray and Paola, 1994)
$_i$	Grainsize fraction (Hoey and Ferguson, 1994)
j	Previous iteration soil saturation
J	Soil saturation
K	Hydraulic conductivity
K	Topographic index (Beven and Kirkby 1979)
m	TOPMODEL scaling parameter
m	Constant (Kirkby 1992)
n	Mannings coefficient
p	Bedload proportion (Hoey and Ferguson, 1994)
P	Perimeter
q_s	Volumetric sediment transport
Q	Discharge
Q_i	Discharge (Murray and Paola, 1994)
Q_o	Total discharge carried (Murray and Paola, 1994)

r	Rainfall rate
R	Hydraulic radius
S	Slope
$_t$	Time
T	Time step
w	Channel width
Λ	Gradient (Kirkby 1992)
Λ_o	Gradient threshold (Kirkby 1992)
β	Slope gradient (Beven and Kirkby 1979)
ψ	Balance between forces restraining an moving particle (Einstein 1950)
ρ_s	Sediment density
ρ	Water density
ϕ	Dimensionless bedload transport rate (Einstein 1950)