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## NOMENCLATURE

$c$	concentration of the solute, $\text{kg m}^{-3}$
$D_{xx}$	components of dispersion coefficient along $x$ axis, $\text{m}^2\text{s}^{-1}$
$D_{yy}$	components of dispersion coefficient along $y$ axis, $\text{m}^2\text{s}^{-1}$
$D_{zz}$	components of dispersion coefficient along $z$ axis, $\text{m}^2\text{s}^{-1}$
$u_x$	components of groundwater velocity along $x$ axis, $\text{ms}^{-1}$
$u_y$	components of groundwater velocity along $y$ axis, $\text{ms}^{-1}$
$u_z$	components of groundwater velocity along $z$ axis, $\text{ms}^{-1}$
$D_{xx0}$	initial dispersion coefficient along $x$ axis, $\text{m}^2\text{s}^{-1}$ ,
$D_{yy0}$	initial dispersion coefficient along $y$ axis, $\text{m}^2\text{s}^{-1}$
$D_{zz0}$	initial dispersion coefficient along $z$ axis, $\text{m}^2\text{s}^{-1}$
$u_{x0}$	initial groundwater velocity along $x$ axis, $\text{ms}^{-1}$
$u_{y0}$	initial groundwater velocity along $y$ axis, $\text{ms}^{-1}$
$u_{z0}$	initial groundwater velocity along $z$ axis $\text{ms}^{-1}$
$c_0$	reference / source concentration
$c_i$	initial concentration
$x$	distance measured $x$ axis, m
$y$	distance measured $y$ axis, m
$z$	distance measured $z$ axis, m
$t$	time, s
$m$	unsteady parameter regulates dispersion and groundwater velocity, $\text{s}^{-1}$
$R$	dimensionless retardation factor
$a_1, b_1, c_1,$ $f_1, f_2$	constants those determine the planes