

Planar axial-symmetric diffusion equation

Diffusion Equation in 2D two-dimensional euclidian space ²

Planar diffusion equation with axial symmetric property distribution:

(1)
$$\frac{\partial w}{\partial t} = \frac{\partial w^2}{\partial^2 r} + \frac{1}{r} \frac{\partial w}{\partial r}$$

where

$w(t, \mathbf{r})$	dynamic variable
t	time
$\mathbf{r} = (x, y, z) \in R^3$	position vector

See also

[[Planar diffusion equation](#)]