

Download Curl And Divergence

In vector calculus, divergence is a vector operator that produces a scalar field, giving the quantity of a vector field's source at each point. More technically, the divergence represents the volume density of the outward flux of a vector field from an infinitesimal volume around a given point. The curl of a vector field F , denoted by $\text{curl } F$, or $\nabla \times F$, or $\text{rot } F$, at a point is defined in terms of its projection onto various lines through the point. Divergence definition, the act, fact, or amount of diverging: a divergence in opinion. See more. What does it mean to take the derivative of a function whose input lives in multiple dimensions? What about when its output is a vector? Here we go over many different ways to extend the idea of a derivative to higher dimensions, including partial derivatives, directional derivatives, the gradient, vector derivatives, divergence, curl, etc.