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**Tab 1** :

Fourier Neural Operator for ...

Neural Ordinary Differential...

Ricky T. Q. Chen, Yulia Ruba...

Physics Informed Deep Lea...

Discovering governing equ...

Steven L. Brunton, Joshua L...

$$\frac{\partial u}{\partial t} + u \frac{\partial u}{\partial x} = \nu \frac{\partial^2 u}{\partial x^2}$$

**Where:**

- $u(x, t)$  is the velocity field,
- $\nu$  is the viscosity coefficient

The Burgers equation, in spite of its simplicity, incorporates key aspects of fluid dynamics, including dissipation, shock production, and wave propagation. It is the perfect standard for assessing data-driven and physics-informed models because of its harmony between nonlinearity and diffusion.

3D Surface Plot of Burgers' Equation Dataset

