

# Gradient Flow Solutions For Porous Medium Equations with Nonlocal Lévy-type Pressure

Markus Schmidtchen (Institute of Scientific Computing of TU Dresden)

We study a porous medium-type equation whose pressure is given by a non-local Lévy operator associated to a symmetric jump Lévy kernel. The class of nonlocal operators under consideration appears as a generalisation of the classical fractional Laplace operator. For the a class of Lévy-operators, we construct weak solutions using minimising movements.

(Joint work with G. Foghem and D. Padilla)