

# Gradient flow solutions for porous medium equations with nonlocal Lévy-type pressure

*Tuesday, June 25, 2024 10:00 AM (30 minutes)*

We study a porous medium-type equation whose pressure is given by a nonlocal Lévy operator associated to a symmetric jump Lévy kernel. The class of nonlocal operators under consideration appears as a generalization of the classical fractional Laplace operator. For the class of Lévy-operators, we construct weak solutions using a variational minimizing movement scheme. The lack of interpolation techniques is ensued by technical challenges that render our setting more challenging than the one known for fractional operators. This is joint work with Guy Foghem and Markus Schmidtchen.

**Presenter:** PADILLA-GARZA, David (IST Austria)