

1139-58-420

Janna Lierl* (janna.lierl@uconn.edu), 341 Mansfield Road, Storrs, CT 06269, and
Karl-Theodor Sturm. *Neumann heat flow and gradient flow for the entropy on non-convex domains.*

For large classes of non-convex subsets Y in \mathbb{R}^n or in Riemannian manifolds (M, g) or in RCD-spaces (X, d, m) we prove that the gradient flow for the Boltzmann entropy on the restricted metric measure space (Y, d_Y, m_Y) exists – despite the fact that the entropy is not semiconvex – and coincides with the heat flow on Y with Neumann boundary conditions. (Received February 18, 2018)