

## The supercritical Lane-Emden equation and its gradient flow

**Michael Struwe**

ETH Zürich, Switzerland

[struwe@math.ethz.ch](mailto:struwe@math.ethz.ch)

*Session: 11. Geometric Analysis and Related Topics*

In joint work with Simon Blatt and Melanie Rupflin we lay out a functional analytic framework for the Lane-Emden equation  $-\Delta u = u|u|^{p-2}$  in the supercritical regime when  $p > \frac{2n}{n-2}$  and establish Morrey estimates for solutions to the heat flow as well as existence of partially regular tangent maps at blow-up points.