

- **Schrohe, Elmar: Bounded H_∞ -calculus for parameter-elliptic boundary problems on conic manifolds and applications to the porous medium equation**

We show that parameter-elliptic boundary value problems on manifolds with boundary and conical singularities have a bounded H_∞ -calculus. This allows us to use maximal regularity methods in order to establish the existence of short time solutions to the porous medium equation on such spaces and to analyze their behavior near the tip of the cone.

(Joint work with N. Roidos (Hannover) and J. Seiler (Turin))