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**Abstracts of Short Communications and Posters**

**Section:**

## 9. Ordinary Differential Equations and Dynamical Systems

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Riedl, Johannes, Technische Universität München, Germany; joint work with Dierk Schleicher, Technische Universität München, Germany

**On Crossed Renormalization of Quadratic Polynomials**

Renormalization is an important tool for iterated dynamical systems: restricting to a small domain, considering higher iterates and rescaling can lead to new systems describing the old one locally. For quadratic polynomials, McMullen has shown that there are two types of renormalization: simple and crossed renormalization. The first one is well known; the main tool for its examination is the theory of polynomial-like mappings by Douady and Hubbard. Using their results, we describe the dynamics of quadratic polynomials which are crossed renormalizable. We show that the locus of crossed renormalization within the Mandelbrot Set $M$ is organized in sets which are homeomorphic to limbs of $M$.

*Reference:* J. Riedl, D. Schleicher: On the Locus of Crossed Renormalization, to appear