

---

**ARMIN RAINER**, University of Toronto, 40 St. George St., Toronto, ON M5S 2E4, Canada

*Quasianalytic perturbation of polynomials and linear operators*

Given a smooth family of complex univariate polynomials (resp. normal matrices), it is natural to study the regularity of its roots (resp. its eigenvalues and eigenvectors). Using resolution of singularities, considerable progress was recently made for quasianalytic multiparameter families of polynomials (resp. matrices). Similar perturbation results can be obtained for quasianalytic families of unbounded normal operators with compact resolvent and common domain of definition. This requires a differential calculus for quasianalytic mappings beyond Banach spaces, which we recently developed for some quasianalytic Denjoy–Carleman classes.

Joint work with A. Kriegel and P. Michor.