

TEMPLE UNIVERSITY

Department of Mathematics

Analysis Seminar

Room 617 Wachman Hall

Friday, October 18 2019, 11:00 a.m.

Special date and time

Equivalence of Cauchy-Riemann manifolds and multisummability theory

by Laurent Stolovitch

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Abstract: We prove that if two real-analytic hypersurfaces in \mathbb{C}^2 are equivalent formally, then they are also C^∞ CR-equivalent at the respective point. As a corollary, we prove that all formal equivalences between real-algebraic Levi-nonflat hypersurfaces in \mathbb{C}^2 are algebraic (in particular are convergent). The result is obtained by using the recent *CR - DS technique*, connecting degenerate CR-manifolds and Dynamical Systems, and employing subsequently the *multisummability theory* of divergent power series used in the Dynamical Systems theory. This is a joint work with I. Kossovskiy and B. Lamel.