

1050-34-92

Tadeusz Iwaniec and **Leonid V. Kovalev*** (lvkova1e@syr.edu), Department of Mathematics, 215 Carnegie Building, Syracuse University, Syracuse, NY 13244-1150, and **Jani Onninen**.

Uniqueness for ordinary differential equations associated with quasiconformal mappings.

We address the question: does the ODE $\dot{x} = f(x)$, where $f: \mathbb{R}^n \rightarrow \mathbb{R}^n$ is a quasiconformal mapping, have unique solutions outside of $f^{-1}(0)$? In this generality the problem remains unsolved, but we give an affirmative answer under additional assumptions on f . For example, uniqueness holds when f is a δ -monotone mapping or, in the planar case, when f is a solution of the reduced Beltrami equation. (Received February 27, 2009)