INSALATE DI MATEMATICA

An introduction to diffeology

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IN THIS TALK

Diffeology is a framework for differential geometry introduced by J.-M. Souriau. Its central idea is to specify which parametrizations from Euclidean spaces into a given set are declared smooth. These parametrizations need not be locally injective, a feature that allows diffeology to encode smooth structures not only on manifolds, but also on singular quotients and infinite-dimensional spaces. In this talk we will introduce the theory by presenting its axioms and basic constructions, and discuss illustrative examples and counterexamples, with comparisons with standard differential geometry. Time permitting, we will briefly indicate applications to symplectic reduction.

🔑words: diffeology, differential geometry. singular spaces

"Obvious" is the most dangerous word in mathematics.
(Eric Temple Bell)

U9 - 11 📍
4:45 pm (CET) 🕐

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