

Scuola Normale Superiore
Piazza dei Cavalieri, 7
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Palazzo del Castelletto
ore 14



Colloquio De Giorgi

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An inverse function theorem in C^∞

Abstract

We state and prove a "hard" inverse function theorem which extends the classical theorem of Nash and Moser. In contrast with the latter, we do not use the Newton iteration procedure, so we do not require that the function to be inverted is C^2 , or even C^1 , or even Fréchet-differentiable. The proof is direct, and relies on Ekeland's variational principle. During the colloquium, we will explain the method and prove the theorem in the "easy" case (Banach spaces) and during the seminar we will provide the proof in the "hard" case (Fréchet spaces)

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Info: Servizio supporto attività didattiche Classe di Scienze - Scuola Normale Superiore