

Differential Equations on p-adic Analytic Spaces*

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Calendario: II trimestre (14 gennaio/14 marzo 2008) Lunedì, Martedì, Mercoledì dalle 11.30 alle 13.00 in aula 2AB/40, (Torre Archimede, via Trieste 63)

Programma:

1. Foundations of the theory of non-archimedean analytic spaces, in the sense of Berkovich.
2. Smooth analytic spaces. Topologies.
3. General definitions on connections on p-adic vectors bundles and p-adic differential equations
4. The one-dimensional case. Some classical results: radii of convergence, growth of solutions, Frobenius structures.
5. Local systems on the pointed p-adic disk.
6. Christol-Mebkhout slopes and factorization.
7. Equations of Robba type. Exponents.
8. Semistable models and log-isocrystals. Formulazione di modelli e programmazione lineare

Responsabile nel Consiglio di Dottorato: F. Baldassarri.

* corso mutuato dalla Laurea Specialistica Algant