

# Topics on p-adic Langlands

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**Timetable:** 20 hrs. First lecture on February 10, 2015 (dates already fixed, see the calendar), Torre Archimede, Room 2BC/30.

**Course requirements:**

**Examination and grading:**

**SSD:** MAT/0

**Aim:**

**Course contents:**

We will especially focus on explaining links between locally analytic representations and families of (phi,Gamma)-modules. We will begin with more elementary lectures on deformations rings.

The lectures will be held according to the following program:

1. Introduction to local correspondences, with a focus on modular forms
2. Generalities on mod p representations
3. Generalities on p-adic representations
4. Locally analytic representations
5. A semi-simple modp correspondence for  $GL_2(Q_p)$
6. The p-adic correspondence for  $GL_2(Q_p)$ , statements, no proofs
7. Automorphic p-adic forms
8. Emerton-Jacquet modules and eigenvarieties
9. Trianguline Galois representations
10. ...let see later...

**Other information:**

The course will be integrated by a series of more elementary and introductory lectures by Stefano Morra (Univ. Montpellier-IHES): these lectures will be addressed also to Master students.

For any information: Bruno Chiarellotto