

The purpose of this series of talks is to explain recent results on the realization of local Langlands correspondences in the cohomology of p -adic analogs of Shimura varieties. I will try to introduce the main objects showing up in this theory and then state recent advances in this subject.

Here is a list of subjects I will talk about :

- Unitary PEL type Shimura varieties : complex uniformization, cohomology, integral models, Newton stratification.
- Rapoport-Zink spaces and the p -adic uniformization of Shimura varieties.
- The $(1, n - 1)$ -signature case studied by Harris and Taylor. Lubin-Tate spaces and their cohomology. Cuspidal cohomology of more general Rapoport-Zink spaces.
- The isomorphism between Lubin-Tate and Drinfeld towers. The cohomology of those towers.