

Oberwolfach Seminar 2024:

**Reduction of Arithmetic Varieties**

Date:

**20 Oct - 25 Oct 2024** (ID: 2443b)

Organizers:

**Thomas J. Haines, College Park**  
**Timo Richarz, Darmstadt**  
**Eva Viehmann, Münster**  
**Torsten Wedhorn, Darmstadt**

**Preliminary program:**

1. The construction of local models after Pappas and Zhu and their singularities.
2. Moduli spaces of  $p$ -adic shtukas, the Beilinson–Drinfeld Grassmannians, their  $p$ -adic theory via diamonds and the recent solution of the Scholze–Weinstein conjecture giving a characterization of local models.
3. Moduli spaces of global and local  $G$ -shtukas and discussion of the EKOR stratification.
4. Shimura varieties over global number fields, the construction of arithmetic models for parahoric level structures after Kisin, Pappas and Rapoport and the EKOR stratification of its reduction.