

## Moduli spaces and their uniformizations - 2

*Monday, 18 July 2022 16:00 (1 hour)*

During the first lesson, I will introduce the moduli space of principally polarized abelian varieties. Over the complex numbers, it admits a uniformization via a hermitian symmetric space – the Siegel upper half-space. This admits an embedding into its compact dual, providing an important tool to study automorphic vector bundles and modular forms. In the other two lessons, after introducing this classical setting, I will then outline the p-adic analogue due to the work of P. Scholze.

References:

CL Chai - Siegel moduli schemes and their compactifications over  $\mathbb{C}$  - Arithmetic geometry, 1986 - Springer

P Scholze - On torsion in the cohomology of locally symmetric varieties - Annals of Mathematics, 2015 (only section 3)

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