# SFB-Seminar (Research Project C3)

**TIME:**
5 Jan 2016, 15:00 - 18:00

**LOCATION:**

**PROGRAM:**

15:00 - 15:30 Coffee Break

15:30 - 16:30 **Prof. Dr. Samuel Grushevsky (Stony Brook University)**

**Moduli of abelian varieties: homology and compactifications**
Complex abelian varieties are algebraic complex tori that appear in various problems of geometric and arithmetic nature. Thus classifying abelian varieties is a natural problem. In this talk we will survey the knowledge of the geometry of the moduli space of abelian varieties, including geometrically defined subvarieties, homology classes, intersection rings. These questions will naturally lead us to study compactifications of the moduli spaces, and we will discuss the stable and tautological homology for these moduli spaces.

16:30 - 17:00 Coffee Break

17:00 - 18:00 **Prof. Dr. Gavril Farkas (Humboldt U)**

**Moduli of abelian varieties: uniformization**
It is classically known that the general principally polarized abelian variety of dimension at most five is a Prym variety. This reduces the study of abelian varieties of small dimension to the beautifully concrete and rich theory of algebraic curves. I will discuss decisive recent progress on finding a structure theorem for principally polarized abelian varieties of dimension six, and the implications this uniformization result has on the geometry of their moduli space.

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