Martin Möller: **The volume of the moduli space of flat surfaces**

The Hodge bundle over the moduli space of curves is statified according to the type of zeros of the differential form. These strata have a natural volume form, invariant under the Teichmueller geodesic flow.

We compute the volumes of these moduli spaces in a way that allows to deduce large genus asympotitcs. We will present applications of this to Lyapunov exponents, to Siegel-Veech constants and to slopes of curves in the moduli space of curves.