Topology, Arithmetic, & Dynamics Seminar

Voronoi Tilings and Loop Groups

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I would like to describe a partial compactification of the loop group LT of a torus. All the ingredients are infinite dimensional but the final result is essentially described by a finite dimensional toric variety. The catch is that the fan of the toric variety has infinitely many cones. In the case of $T = \mathbb{C}^*$ the compactification recovers the Tate curve which has a central fiber which is an infinite chain of projective lines. The Tate curve is closely related to the moduli of line bundles on a genus 0 nodal curve. A similar modular interpretation is available for higher rank tori. It seems likely that there is also a connection with Aleexev and Nakamura's work on degenerations of Abelian varieties.

Date: **Monday, March 21, 2016**
Time: **2:30-3:30pm**
Place: **3301 Exploratory Hall**

For special accommodations, please contact Sean Lawton via email at `slawton3@gmu.edu`.