

Geometry, Groups and Dynamics/GEAR Seminar  
(held at the Illinois hub of GEAR )

**12:00 pm, Tuesday, March 15, 2016, 243 Altgeld Hall**

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SO( $n, n+1$ ) surface group representations

Abstract: In this talk I will discuss a parameterization of  $n(2g-2)$  connected components of the SO( $n, n+1$ ) character variety of a closed surface of genus  $g$ . We will see how this parameterization generalizes both Hitchin's parameterization of the Hitchin component as a vector space of holomorphic differentials of degree  $2, 4, \dots, 2n$  and Hitchin's parameterization of the nonzero Toledo invariant components of the  $\mathrm{PSL}(2, \mathbb{R}) = \mathrm{SO}(1, 2)$  Higgs bundle moduli space by holomorphic quadratic differentials twisted by an effective divisor.

Video (unavailable)