



**Speaker:** Benjamin Schmidt  
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Tuesday, October 29, 2013  
11:00 AM  
258 Hurley Hall

**Title:** An infinite dimensional moduli of complete, curvature homogeneous metrics on  $SL(2, R)$ .

**Abstract:**

I'll describe a construction that associates to each positive smooth function  $F$  on the circle, a complete and curvature homogeneous Riemannian metric  $g_F$  on  $SL(2, R)$ . In this construction, the following are equivalent:

- 1)  $F$  is constant
- 2)  $g_F$  is left-invariant
- 3)  $(SL(2, R), g_F)$  Riemannian covers a finite volume manifold

Moreover, the construction commutes with the natural  $Diff(S^1)$  and  $Diff(SL(2, R))$  actions on functions and metrics, yielding an infinite dimensional moduli space of such metrics. Joint with Jon Wolfson.