

# Mathematics Colloquium

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# Complex Projective Structures with Schottky Holonomy

*Abstract: A (complex) projective structure is a certain geometric structure on a (closed) orientable surface  $S$ , and it corresponds to a (holonomy) representation  $\rho: \pi_1(S) \rightarrow \mathrm{PSL}(2, \mathbb{C})$ . On the other hand, such a (fixed) representation corresponds to infinitely many distinct projective structures.*

*In 1987, William Goldman gave a characterization of projective structures corresponding to an isomorphism from  $\pi_1(S)$  onto a quasifuchsian group, using a surgery operation called “grafting”. We will give an analogous characterization of projective structures corresponding to an epimorphism from  $\pi_1(S)$  onto a Schottky group, where the genus of  $S$  is equal to the rank of the Schottky group.*

**Wednesday, April 29**

**4:00-5:00 pm**  
**204 Smith Hall**