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**Julien Paupert\*** (paupert@math.utah.edu), Department of Mathematics, University of Utah, 155 South 1400 East, Salt Lake City, UT 84112, and **John R Parker**. *Discrete complex reflection groups in  $PU(2,1)$* .

The group  $PU(n,1)$  of holomorphic isometries of complex hyperbolic  $n$ -space is one of the two occurrences (with  $PO(n,1)$ ) of a simple real Lie group of rank 1 where Margulis superrigidity does not hold. The only known examples of nonarithmetic lattices in  $PU(2,1)$  were constructed by Picard, then Mostow in the 1980's. We will recall the construction of these lattices, which are generated by complex reflections, and we will show how to find new examples of the same kind in a family of configuration polygons. Part of this is joint work with John Parker (Durham). (Received September 08, 2009)