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*Canonical neighborhoods of punctures a la Beardon and Halpern.*

Canonical neighborhoods for punctures on hyperbolic Riemann surfaces were defined by Noemi Halpern (in her 1981 paper “A proof of the collar lemma”) and Alan F. Beardon (in his 1983 book “The Geometry of Discrete Groups”). They are larger than the neighborhoods yielded by the well-known and more general Jorgensen inequalities, and they deserve to be better known. That is the reason for this talk.

I will describe Halpern and Beardon’s constructions and some of their interesting consequences. The proofs are surprisingly easy. They rely on the obvious fact that if  $f: U \rightarrow R$  is a universal covering of the Riemann surface  $R$  by the upper half plane  $U$ , then the group of covering transformations contains no elliptic transformations. (Received January 05, 2016)