1067-51-948Joseph Fera* (jfera@wesleyan.edu), Department of Math and CS, 265 Church Street,
Middletown, CT 06459. On Exceptional Points of Cocompact Fuchsian Groups. Preliminary
report.

Let G be a cocompact Fuchsian group covering a compact hyperbolic surface of genus g. Beardon proved that the Dirichlet region for G based at z, D(z), has 12g-6 sides for almost every z in the hyperbolic plane H. Points z for which D(z) does not have 12g-6 sides are called exceptional and comprise a zero-measure subset of H. Using geometric and topological arguments, we prove that every cocompact Fuchsian group admits uncountably many exceptional points. Time permitting, we define "higher order" exceptional points and state their existence for cocompact G. (Received September 16, 2010)