1047-30-143 Kenneth D Koenig\* (koenig@math.ohio-state.edu), Department of Mathematics, Ohio State University, Columbus, OH 43210, and Loredana Lanzani (lanzani@uark.edu), Department of Mathematics, University of Arkansas, Fayetteville, AR 72701. Bergman versus Szegö via conformal mapping.

The study of holomorphic functions and their boundary values is a fundamental part of complex analysis, so it is natural to compare the Bergman and Szegö projections associated to a given domain and gauge how closely they are related to each other. After a brief overview of known results in one and several complex variables for domains with  $C^{\infty}$  boundary, this talk will focus on (bounded) simply connected planar domains that are not  $C^{\infty}$  smooth. For such domains with Hölder continuous boundary, the difference between these projections gains a derivative in an appropriate range of Sobolev or Lipschitz norms. (Received January 26, 2009)