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Lisa De De Castro* (ldecastro@mail.usf.edu), Department of Mathematics & Statistics, University of South Florida, 4202 E Fowler Ave, CMC342, Tampa, FL 33620, and **Dmitry Khavinson**. *Analytic functions with real boundary values in Smirnov classes E^p .*

Let G be a finitely connected domain in the complex plane. The Smirnov class $E^p(G)$ and the Hardy class $H^p(G)$ are sets of analytic functions on G with prescribed growth conditions. When $p \geq 1$, a function of Smirnov class E^p can be recovered by its boundary values via the Cauchy integral. Functions in the Hardy classes can be recovered by their boundary values via the Poisson integral. If an analytic function of Hardy class has real boundary values, then it is a constant function. However, the same is not always true of functions in the Smirnov classes. This talk explores the geometric characteristics of G that will yield non-constant analytic functions in Smirnov classes $E^p(G)$ with real boundary values. (Received September 17, 2012)