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Zihui Zhao* (zhaozh@uw.edu). *Elliptic measures and geometric properties of the domains.*

Elliptic measure is an analogue of the harmonic measure and it allows us to represent the solution to a Dirichlet problem by integrating the boundary function. The study of the relationship between the elliptic measure ω and the surface measure σ of the boundary, in particular under various geometric assumptions of the domain, goes back to 100 years ago. In this talk we focus on the converse question: Assume that $\sigma \ll \omega$, in a qualitative or quantitative sense, what conclusions can we draw about the geometric properties of the domain? (Received January 23, 2018)