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Meredith Sargent* (sargent@uark.edu) and **Alan A Sola**. *Optimal approximants and orthogonal polynomials in several variables.*

In recent years, optimal polynomial approximants have been used to study cyclicity of functions in Dirichlet-type spaces on the complex unit disk, with particular interest being paid to the connection between the location of the zero sets of the optimal approximants and cyclicity, as well as a correspondence between optimal approximants and orthogonal polynomials. In this talk we discuss generalizing the concept of optimal approximants to several variables, including to the cases of Dirichlet-type spaces on the bidisk, and to a scale of Drury-Arveson-type spaces on the ball, as well as some of the inherent complications. (Received September 01, 2020)