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Greg Knese* (geknese@bama.ua.edu), University of Alabama, Dept. of Mathematics, 345
Gordon Palmer Hall, Box 870350, Tuscaloosa, AL 354870350. *Schur-Agler class rational inner
functions on the tridisk.*

The Schur-Agler class is a natural class of bounded analytic functions on the polydisk studied for its connection to multivariable von Neumann inequalities. We discuss some recent results showing the inclusion of certain low degree rational inner functions in this class. We also discuss how these problems establish a close relationship to the problem of representing a positive trigonometric polynomial as a sum of squares. (Received June 27, 2011)