

Subnormal n th roots of quasinormal operators are quasinormal

Jan Stochel

In a recent paper [1], R. E. Curto, S. H. Lee and J. Yoon asked the following question.

Let A be a subnormal operator, and assume that A^2 is quasinormal. Does it follow that A is quasinormal?

In [2] together with Pawel Pietrzycki, we have answered that question in the affirmative. In fact, we have prove a more general result that subnormal n th roots of quasinormal operators are quasinormal. Research on this problem has led us to a new criterion for a semispectral measure on the half-line to be spectral, written in terms of its two “moments”.

[1] R. E. Curto, S. H. Lee, J. Yoon, Quasinormality of powers of commuting pairs of bounded operators, *J. Funct. Anal.* 278 (2020), 108342.

[2] P. Pietrzycki, J. Stochel, Subnormal n th roots of quasinormal operators are quasinormal, submitted.

Department of Mathematics, Jagiellonian University, Poland

E-mail: Jan.Stochel@im.uj.edu.pl