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ON DETERMINING MINIMAL SPECTRALLY ARBITRARY PATTERNS*

MICHAEL S. CAVERS†, IN-JAE KIM‡, BRYAN L. SHADER§, AND KEVIN N. VANDER MEULEN¶

Abstract. A new family of minimal spectrally arbitrary patterns is presented which allow for arbitrary spectrum by using the Nilpotent-Jacobian method introduced in [J.H. Drew, C.R. Johnson, D.D. Olesky, and P. van den Driessche. Spectrally arbitrary patterns.*Lin. Alg. and Appl.* 308:121-137, 2000]. The novel approach here is the use of the Intermediate Value Theorem to avoid finding an explicit nilpotent realization of the new minimal spectrally arbitrary patterns.

Key words. Sign pattern, Spectrum, Nilpotent matrix.

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†Department of Combinatorics and Optimization, University of Waterloo, Waterloo, ON Canada, N2L 3G1 (mscavers@math.uwaterloo.ca).

‡Formerly at the University of Wyoming. Current address: Department of Mathematics and Statistics, University of Victoria, P.O. Box 3045, Victoria BC, Canada, V8W 3P4 (injaekim89@hotmail.com).

§Department of Mathematics, University of Wyoming, Laramie, WY 82071, USA (bshader@uwyo.edu).

¶Department of Mathematics, Redeemer University College, Ancaster, ON Canada, L9K 1J4 (kvanderm@redeemer.on.ca). Research supported in part by NSERC.