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Stephan Ramon Garcia* (stephan.garcia@pomona.edu), 610 N College Ave, Claremont, CA 91711. *Nonvanishing minors and uncertainty principles.*

Fourier uncertainty principles play a major role in harmonic analysis, mathematical physics, and number theory. In 2005, Tao used a nonvanishing minors result for the DFT matrix to establish the best possible Fourier uncertainty principle for fields of prime order, a result independently discovered by Biró and Meshulam. We prove an optimal generalization of the BMT principle for functions that enjoy certain symmetries. The discrete cosine matrix and its generalizations play a central role. This is joint work with D. Katz and G. Karaali. (Received September 12, 2018)