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Ilya A Krishtal* (ikrishtal@niu.edu), Northern Illinois University, Department of Mathematical Sciences, Watson Hall 320, DeKalb, IL 60115. *On the spectral theory of operator polynomials with coefficients in a Banach algebra.*

We use the techniques of abstract harmonic analysis to study the spectral properties of a polynomial of a closed linear operator with coefficients in some Banach algebra of bounded linear operators. For example, we show that if the closed operator generates a bounded C_0 -group and the Banach algebra satisfies some mild conditions then the spectrum of the operator polynomial in the algebra of all bounded linear operators coincides with its spectrum in the algebra of coefficients. The talk is based on joint work with A. Baskakov. (Received February 16, 2016)