

CONSTRUCTIVE APPROXIMATION IN DE BRANGES-ROVNYAK SPACES

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In most function spaces on the unit disk where the polynomials are dense, one can approximate a given function by dilating it slightly and then truncating its Taylor expansion. In this talk, I shall discuss a rather surprising example where this procedure fails dramatically. The space in question is a de Branges-Rovnyak space. In the positive direction, I shall also exhibit a constructive procedure for polynomial approximation in de Branges-Rovnyak spaces using Toeplitz operators. Joint work with Omar El-Fallah, Emmanuel Fricain, Karim Kellay and Javad Mashreghi.