

On spectra of measures

Przemysław Ochrysto

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In this talk I would like to present the most important topics from the article 'On the relationships between Fourier - Stieltjes coefficients and spectra of measures' (joint work with Michał Wojciechowski) which will be published soon in *Studia Mathematica*. This work concentrates on problems related to Banach algebra $M(\mathbb{T})$ (convolution algebra of measures on the circle group) and especially on spectra of measures. Despite the fact that they can be very complicated in general, we have proved that it is possible to force measures to have 'natural' spectra (equal to the closure of the range of its Fourier - Stieltjes transform) in a way which uses only whole range of the Fourier - Stieltjes transform without any information on the distribution.