## 1117-42-237 Mishko Mitkovski\* (mmitkov@clemson.edu). Determinacy problem for measures.

A finite positive measure  $\mu$  is said to be *a*-determinate if there is no other finite positive measure  $\nu$  such that the Fourier transforms of  $\mu$  and  $\nu$  agree on some interval of length *a*. For a given measure  $\mu$  we show how to estimate the largest *a* for which  $\mu$  is *a*-determinate by looking only at the support of  $\mu$ . Our approach is partly based on the de Branges-Naimark extreme point method. We use the same method to improve the famous result of Eremenko and Novikov concerning oscillations of measures with a spectral gap. I will also present some more recent results about the determinacy part of the classical moment problem. This is joint work with A. Poltoratski. (Received January 15, 2016)