

Szegő condition and scattering for Dirac operators**09.07****Roman Bessonov***(Saint Petersburg State University and PDMI, Russia)***Time:** Thursday 25.07., 11:30 - 12:00, Room HS 4

Abstract: A classical fact of scattering theory for one-dimensional Dirac operator is the existence of strong wave operators in the case where the potential of the operator is absolutely integrable over the real line. Much more deep results by Christ, Kiselev (2002) and Denisov (2004) establish the existence of wave operators for potentials in L^p for $1 < p < 2$ and $p = 2$, correspondingly. In all cases the spectral measure of the Dirac operator under consideration belongs to the Szegő class on the real line: its density coincides with the absolute value of an outer function. We show that this condition always imply existence of wave operators, which allows us to describe a broad class of “large” potentials for which the wave operators exist. The work is supported by grant RScF 19-11-00058.