Math 581E Autumn 2016

MW 2:30 - 4:00

Microlocal Analysis

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Course description. This course covers the topic of microlocal analysis in a smooth framework, as created in the sixties and seventies by Kohn-Nirenberg, Maslov, Hörmander and others. The presentation will follow the book by Alain Grigis and Johannes Sjöstrand *Microlocal Analysis for Differential Operators.* We will cover the local theory of Fourier Integral Operators in Euclidean space and prove Hörmander's theorem of propagation of singularities for operators of real principal type.

Prerequisites. Basic knowledge of distribution theory, differential geometry, partial differential equations and functional analysis.