

ON THE WEYL SPECTRAL COUNTING FUNCTION OF SOME SEMIREGULAR GLOBAL SYSTEMS

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In this talk I will be discussing some recent work with Marcello Malagutti about the spectral asymptotics of certain global semiregular pseudodifferential systems. The class considered here contains important models such as the Jaynes-Cummings system, fundamental in Quantum Optics, but also models of geometric complexes. We give the asymptotics of the Weyl spectral counting functions in terms of the principal, semiprincipal and subprincipal symbols of the system, along with a refined asymptotics when some conditions on the semiprincipal part are fulfilled.