Franz Berger: The $\bar{\partial}$-Neumann problem in several complex variables

In complex analysis, holomorphic functions may be studied as solutions of the Cauchy-Riemann equations. A powerful technique in this context is to consider the Dolbeault Laplacian, a second order elliptic operator, as an unbounded operator on a suitable $L^2$ space. The analytical difficulties that arise in making this work on domains with boundary are known as the $\bar{\partial}$-Neumann problem. In this talk, I will first give an introduction to the general setup of the problem, and then focus on the question of what the spectrum of the Laplacian can tell us.

15. November, 15:00-15:45
Seminar Room 13