

神楽坂解析セミナー（臨時）

日 時：2019年4月2日（火）15:30～16:30

場 所：東京理科大学神楽坂キャンパス 8号館851教室

講演者：Giorgio Metafuno 氏（University of Salento, Italy）¹

題 目：Degenerate operators and analytic semigroups

概要.

In this talk I consider second order elliptic operators degenerating near the boundary of an open set $\Omega \subset \mathbb{R}^N$. The prototype in the half space $\{y > 0\}$ is the following

$$L = y(\Delta_x + D_{yy}) + bD_y + a \cdot \nabla_x$$

where $a \in \mathbb{R}^N, b \in \mathbb{R}$. Note that all second order coefficients vanish near the boundary. Other situation are, of course, possible as well as higher order of degeneracy. In the talk I will review on known and recent results both in 1d and Nd, in spaces of continuous functions and in L^p with respect to the Lebesgue measure. A typical feature is the dependence of the boundary conditions on the kind of degeneracy and, in the example above, on the size of the coefficient b . Variable coefficients and domains are treated via localization techniques.

Most of the content of these lectures is based on joint works with Simona Fornaro, Diego Pallara, Jan Prüss, Roland Schnaubelt.

共催：東京理科大学総合研究院 数理モデリングと数学解析研究部門

連絡先：側島基宏（sobajima_motohiro (at) ma.noda.tus.ac.jp, (at) を@に変えてお使いください。）

世話人：側島 基宏 （東京理科大学理工学部数学科）