

# 第 1 1 9 回神楽坂解析セミナー

日時: 平成 26 年 1 月 15 日 (水曜日) 15:00 ~ 17:30

場所: 東京理科大学神楽坂校舎 1 号館 3 階 131 教室

## 1. 15:00–16:00

講演者 Dumitru Motreanu (University of Perpignan)

講演題目 “Sign-changing solutions for nonlinear elliptic equations and systems”

アブストラクト Sufficient conditions to guarantee the existence of sign-changing solutions for nonlinear elliptic problems are given. These results are presented as part of multiplicity theorems for nonlinear elliptic equations and systems. Essential differences between the study of equations and systems are pointed out. The methods involve sub-supersolutions and variational approach.

## 2. 16:30–17:30

講演者 Viorica Venera Motreanu (Ben Gurion University of the Negev)

講演題目 “Embedding properties of a weighted Sobolev space with Dirichlet boundary condition”

アブストラクト The purpose of the talk is to introduce a solution space adapted to quasilinear problems involving the weighted  $p$ -Laplacian differential operator with Dirichlet boundary conditions, to study embedding properties of it into weighted Lebesgue spaces by means of the notions of singular locus of a weight and extension domain of a weight, and present applications providing existence of solutions for the above-mentioned problems.

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