

## 第 1 8 4 回 広島数理解析セミナー ( 2 0 1 4 年度 )

### Hiroshima Mathematical Analysis Seminar No.184

日時 : 12月12日(金) 15:00 ~ 17:30

場所 : 広島大学理学部 B707

今回は2件の講演です.

15:00 ~ 16:00

講師 : Ruy Coimbra Charão 氏 ( Federal University of Santa Catarina )

題目 : An energy method to get (almost) optimal decay estimates  
for abstract evolution differential equations of second order

要旨 : In this talk we show a method to get (almost) optimal decay estimates to the corresponding energy functional and  $L^2$ -norms for linear evolution differential equations of second order in time. The framework is supported by a special energy method in the associated Fourier space. The constructed abstract theory can be applied to several concrete evolutionary partial differential equations. We will show concrete examples.

16:30 ~ 17:30

講師 : 若狭 恭平 氏 (北海道大学)

題目 : The lifespan of solutions to wave equations with weighted nonlinear terms in one space dimension

要旨 : In this talk, we consider the initial value problem for nonlinear wave equation with weighted nonlinear terms in one space dimension. Kubo & Osaka & Yazici (2013) studied global solvability of the problem under different conditions on the nonlinearity and initial data, together with an upper bound of the lifespan for the problem. The aim of this talk is to improve the upper bound of the lifespan and to derive its lower bound which shows the optimality of our new upper bound.

広島数理解析セミナー幹事

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