



KYOTO UNIVERSITY

GLOBAL COE PROGRAM

数学のトップリーダーの育成 – コア研究の深化と新領域の開拓

GCOE Special Lecture

by

Prof. Michael Farber

(Warwick University)

closed one-forms in topology and dynamics

I will survey the recent progress in topology and dynamics using the techniques of closed 1-forms. I will describe a Lusternik–Schnirelmann type theory for closed 1-forms which includes the focusing effect for flows and the theory of Lyapunov 1-forms. This approach allows to draw conclusions about properties of flows by studying homotopical and cohomological features of manifolds.

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**Room 108, Faculty of Science Building No. 3
Department of Mathematics, Kyoto University**