集中講義

位相幾何学特選 微分位相幾何学特論(修) 幾何学特殊講義HII(博)

Martin Guest 講師

(早稲田大学 教授)

談話会

10月9日(月) 16:00~

## Solving differential equations from quantum cohomology

Quantum cohomology originated (as the name suggests) in physics, but it has led to unexpected links between different areas of mathematics: topology, differential geometry, integrable systems, and various novel algebraic structures. After an introduction to these ideas we shall explain a concrete example, the tt\*-Toda equations. These are nonlinear p.d.e. which admit special solutions related to geometry and physics. Solving these differential equations requires a non-standard combination of techniques, but the results exhibit interesting algebraic structure.

講義 期間

題目

内容

10月10日(火)~10月13日(金)

各日 15:00~18:00

## From differential geometry to tt\*geometry

In this course students will learn how basic knowledge of geometry and topology can lead to topics of current research. There will be a focus on concrete examples such as the tt\* equations (topological-antitopological fusion equations). The course will also illustrate the importance of combining methods from different areas of mathematics.

備考

談話会は、対面 (場所:川井ホール) とリアルタイム配信を実施します。 講義は対面およびオンラインで実施します。詳細は数学専攻ポータルサイトに掲載いたします。