

SGU 数学特別講義 (代数幾何学)

Rational Curves and Holomorphic Symplectic Manifolds

Date : **May 13 - July 8, 2015**

Wednesday, May 13

Wednesday, May 27

Wednesday, June 3

Wednesday, June 10

Wednesday, June 17

Wednesday, July 1

Wednesday, July 8

Time : **14:45 - 16:15**

Venue : **I27 Conference Room**

Faculty of Science Bldg. #3

Kyoto University



In this lecture series, I will try to explain how to use moduli of rational curves to construct holomorphic symplectic (or hyperkähler) manifolds. We will start with a brief introduction to symplectic manifolds and a survey of existing construction methods. We will then have a closer look into Grassmannians, Quot schemes and Hilbert schemes and their use in constructing examples. In particular, I will discuss in some detail the theorems of Beauville and Donagi and of my joint work with N. Addington, C. Lehn, Sorger and van Straten. Depending on the interest of the audience I would also like to discuss the interpretation of some results from the perspective of matrix factorisations and of Kuznetsov's semiorthogonal decomposition of the derived category of cubic fourfolds.

❖ 本講義はSGU数学特別講義 (代数幾何学) として大学院の学生には1単位認定されます。



SGU 入門講義 (学部生向け特別講義)

27 Lines on a Cubic Surface



Date & Time : Wednesday, May 20, 2015, 14:45 - 16:15

Venue : I27 Conference Room, Faculty of Science Bldg. #3, Kyoto University