



For Favour of posting

**The Hong Kong University of Science and Technology**

**Department of Mathematics**

**Hong Kong Geometry Colloquium**

**Gamma conjecture I for del Pezzo surfaces**

by

***Prof. Jianxun HU***

***Sun Yat-Sen University, China***

**Abstract**

Galkin-Golyshev-Iritani proposed Gamma conjecture for Fano manifolds, which relates quantum cohomology of a Fano manifold with its topology. Gamma conjecture consists of Gamma conjecture I, II and the underlying conjecture  $\mathcal{O}$ . In this talk, I will first introduce Gamma conjectures, then I will talk about a proof of the conjecture  $\mathcal{O}$  for del Pezzo surfaces and Gamma conjecture I for weighted projective spaces. This talk will base on a joint work with Hua-Zhong Ke, Changzheng Li and Tuo Yang.

***Date : Saturday, 2 March 2019***

***Time : 10:00a.m.-11:00a.m.***

***Venue : Room 2405, Academic Building  
(near Lifts 17-18), HKUST***

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**On the tautological ring of the moduli space of K3 surfaces**

by

***Prof. Qizheng YIN***

***Peking University, China***

**Abstract**

The tautological ring of the moduli space of curves was introduced by David Mumford. It consists of important geometric classes defined on the moduli space, and has been studied extensively in the past decades. In my talk I will discuss an analog for the moduli space of K3 surfaces. I will explain the proof (joint with Rahul Pandharipande) that two proposed definitions of the tautological ring from different perspectives are actually equal to each other. Then I will mention a few open questions and possible directions.

***Date : Saturday, 2 March 2019***

***Time : 11:20a.m.-12:20p.m.***

***Venue : Room 2405, Academic Building  
(near Lifts 17-18), HKUST***

***All are welcome!***

***Light refreshment will be provided at Room 3493 from 11:00 am to 11:20 am***