スーパーグローバルコース数学特別講義 5

Curve Counting, Geometric Representation Theory, and Quantum Integrable Systems

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127 Conference Room
Faculty of Science Bldg. #3
Kyoto University

Monday, Nov. 13	16:30-18:30
Wednesday, Nov. 15	14:45-16:45
Thursday, Nov. 16	14:45-16:45
Monday, Nov. 20	16:30-18:30
Tuesday, Nov. 21	14:45-16:45

My goal in these lectures will be to explain, focusing on the simplest example of cotangent bundles of Grassmannian, how counting rational curves in certain algebraic varieties is related to several branches of mathematics pioneered and developed here in Kyoto, especially to the quantum group analysis of integrable spin chains and to the geometric realization of quantum groups provided by the Nakajima varieties.

This connection was discovered by Nekrasov and Shatashvili and the example of the Grassmannians is really the most basic example in which the theory can be fully explained. If time permits, I will try to describe the general contours of the theory, as we see them today.

❖ 本講義は「スーパーグローバルコース数学特別講義 5」として、大学院の学生には 1 単位認定されます。

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