

数論セミナー

日時：2018年8月31日（金）16：00 ～ 17：00

場所：自然科学棟 D814

講演者：Dong Han Kim (Dongguk University)

講演題目：The Lagrange and Markov Spectra of Pythagorean triples

Call (p, q) a Pythagorean pair if p and q are positive coprime integers such that $p^2 + q^2$ is a perfect square. Draw a line ℓ from the origin into the first quadrant of the xy -plane. Suppose we want ℓ to avoid all but finitely many Pythagorean pairs with as large a margin as possible. Which ℓ is best? Which is second best? This is Diophantine approximation for the rational points in the unit circle. We will introduce a dynamical system originally defined by Romik in 2008, study its Lagrange and Markov spectra, and explain how our results can answer the above questions. This will provide a classical counterpart to our theory on Romik's dynamical system. This is joint work with Byungchul Cha.

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