

**Mathematics of quasiperiodic order and related topics**  
準周期的秩序の数理とその周辺 (RIMS 共同研究 (グループ型 A))

Date: Monday, 8 November – Wednesday, 10 November, 2021  
2021年11月8日(月)–10日(水)

Place: RIMS + Online via Zoom, Kyoto University

**Monday, 8 November 2021 (2021年11月8日(月))**

10:30-11:15 David Damanik(Rice Univ)

The topological structure of the spectrum of almost periodic Schrödinger operators

11:30-12:15 Yasushi Nagai 永井康史 (Shinshu Univ 信州大)

Absence of absolutely continuous diffraction spectrum for certain S-adic tilings

14:00-15:00 Masaya Yasuda 安田雅哉 (Rikkyo Univ 立教大)

Introduction to lattice basis reduction for solving the shortest vector problem  
最短ベクトル問題求解に向けた格子基底簡約入門

15:15-16:00 Johannes Schönke (Okinawa Inst of Science and Technology)

A family of periodic functions summing up to a constant when homogeneously distributed

16:20-17:00 Yoshikazu Yamagishi 山岸 義和 (Ryukoku Univ 龍谷大)

The diameter of Cayley graphs of cyclic groups and torus source unfolding

**Tuesday 9 November 2021 (2021年11月9日(火))**

9:00-9:45 Ikuro Sato 佐藤郁郎 (Miyagi Cancer Center 宮城県立がんセンター)

Antipodal distance of semi-regular polytopes

10:00-10:45 Mark Loyola (Ateneo de Manila Univ)

Decomposing Realizations of Regular Polyhedra with Automorphism Group  $H_3$

11:00-11:45 Liangyi Huang 黄 良益 (Chongqing Univ 重慶大)

A Dimension Drop Phenomenon of Fractal Cubes

13:30-14:15 Yuki Takahashi 高橋 悠樹 (Saitama Univ 埼玉大)

Analyticity of the Lyapunov exponent of monotonic cocycles with singularities

14:30-15:15 Takuya Okabe 岡部 拓也 (Shizuoka Univ 静岡大)

The optimization problem of phyllotaxis: a unique case of morphological evolution in life

葉序にみる生物形態進化の最適化問題

15:30-16:00 Chanikan Sawatdithep, Supanut Chaidee (Chiang Mai Univ)  
Voronoi Spiral Tiling Recognition Problem

16:05-16:35 Hiroki Kitagawa 北川 大輝, Katsunobu Imai 今井勝喜 (Hiroshima Univ  
広島大)  
Corona limits in three-dimensional periodic tilings

16:40-17:00 Keishiro Ueki 上木 敬士郎 (Ryukoku Univ 龍谷大)  
1 degree of freedom linkages with similar triangular prisms  
相似な三角柱をリンクとする 1 自由度の立体リンケージについて

### **Wednesday 10 November 2021 (2021 年 11 月 10 日 (水))**

9:00-9:45 Eiko Kin 金 英子 (Osaka Univ 大阪大)  
Braids coming from N-body periodic motions and metallic ratios

10:00-10:45 Qinghui Liu 劉慶暉, Zhiyi Tang 唐志毅 (Beijing Inst of Tech 北京理工  
大学)  
Rigorous proof of the conjecture of circular wirelength of hypercube

11:00-11:45 Shigeki Akiyama 秋山 茂樹 (Tsukuba Univ 筑波大)  
Coding of irrational rotation and the graph of Sh.Yasutomi  
無理回転のコード化と安富グラフ

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