**THE UNIVERSITY**  **OF HONG KONG**

*Institute of Mathematical Research*
*Department of Mathematics*

# Number Theory Seminar

## Diophantine approximation with congruence conditions

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**Abstract**

We show a version of the Khinchin–Groshev theorem for Diophantine approximation of real numbers subject to a congruence condition. The proof relies on an extension of the Dani correspondence to the quotient by a congruence subgroup. This correspondence together with a multiple ergodic theorem are used to study rational approximations in several congruence classes simultaneously.

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| Date: | January 24, 2022 (Monday) |
| Time: | 2:00 – 3:00pm (Hong Kong Time) |
| Venue: | ZOOM: https://hku.zoom.us/j/ |
| | Meeting ID: 232 576 6007 |

*All are welcome*