Ryo ISHIZUKA | 石塚 伶

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https://ryo1203.github.io

Education

Tokyo Institute of Technology   **Tokyo, Japan**
Master of Science in Mathematics   *Apr 2022–Current*
Supervisor: Kazuma Shimomoto (2nd year), Fumiharu Kato (1st year)

Tokyo Institute of Technology   **Tokyo, Japan**
Bachelor of Science in Mathematics   *Apr 2018–Mar 2022*
Supervisor:Fumiharu Kato

Research Interests

Commutative algebra in mixed characteristic (via arithmetic methods such as perfectoid rings, prismatic cohomologies, and almost mathematics).

Preprints

[2]   **R.Ishizuka**. *A calculation of the perfectoidization of semiperfectoid rings*. arXiv:2305.07916.

[1]   **R.Ishizuka** and K.Shimomoto. *A mixed characteristic analogue of the perfection of rings and its almost Cohen-Macaulay property*. arXiv:2303.13872.

Talks

○ Aug 2023. *"Absolute integral closure"*, The 18th Summer School on Commutative algebra, Tokyo Institute of Technology, Japan

○ July 2023. *On the commutative ring-theoretic structure of the perfectoidization of semiperfectoid rings*, The 22nd Hiroshima-Sendai Workshop on Number Theory at Hiroshima, Hiroshima University, Japan

○ July 2023. *"On the application of perfectoidization to commutative algebra and its structure"*, The 34th Commutative Ring Theory Seminar, Kitami Institute of Technology, Japan

○ May 2023. *"On Perfectoid(ization) and its commutative ring-theoretic properties"*, Ookayama Algebra Seminar for Young Scientists, Tokyo Institute of Technology, Japan

○ Mar 2023. *"A mixed characteristic analogue of the perfection of rings"*, The 11th Japan-Vietnam Joint Seminar on Commutative Algebra - by and for young mathematicians -, Vietnam Academy of Science and Technology, Vietnam

○ Mar 2023. *"An explicit construction of perfectoid almost Cohen-Macaulay algebras in mixed characteristic"*, MSJ Spring Meeting 2023, Chuo University, Japan

○ Mar 2023. *"An explicit construction of perfectoid almost Cohen-Macaulay algebras"*, The 19th Mathematics Conference for Young Researchers, Hokkaido University, Japan

○ Oct 2022. *"An explicit construction of perfectoid almost Cohen-Macaulay algebras in mixed characteristic"*, The 43rd Japan Symposium on Commutative Algebra, Osaka University, Japan

Membership

○ Apr 2023– . Mathematical Society in Japan (MSJ)

Languages

Japanese: Native   *Mother tangue*

English: Intermediate   *Can read, write, and, listen but may struggle with conversation*

French: Beginner   *Can only read mathematical texts*