

FMfI2023 Poster Session

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Affiliation	Department of Mathematics, Tohoku University, Japan
Poster title	On the number of points with bounded dynamical canonical height
Abstract	<p>The concept of the height function plays a fundamental role in number theory, serving as a measure of "arithmetic complexity." It is not only of technical significance but also an intriguing subject of study in its own right. For instance, Schanuel (1979) derived an asymptotic formula for the count of points in projective n-space over a number field with bounded height, including crucial arithmetic invariants such as the class number. Call-Silverman (1993) introduced the dynamical variant of height functions known as the dynamical canonical height. Hsia (1997) investigated the counting problem of points with bounded dynamical canonical height, using the dynamical height zeta function. Our research aims to provide more precise formulas for the counting problem of points with bounded dynamical canonical height in specific cases. The discussion relies on the explicit computation of the dynamical height zeta function and establishing statements in analytic number theory.</p>
Short Bio	<p>The presenter graduated from the Department of Mathematics at Tohoku University's Faculty of Science in 2020. In 2022, the presenter completed the Master's program in Mathematics within the Graduate School of Science at the same university. Currently, the presenter is in the second year of the doctoral program, specializing in mathematics, at Tohoku University's Graduate School of Science. The presenter holds the position of JSPS Special Research Fellow (DC1). Additionally, the presenter is a member of the WISE program for AI Electronics at Tohoku University.</p>