REPORT ON Dr MI HU's VISIT TO OSLO

1. General description of stay:

Dr Mi Hu received a funding from Trond Mohn Foundation to visit Department of Mathematics, University of Oslo from October to December 2024. In the stay, she collaborated with faculty member Tuyen Trung Truong, as well as with another visitor John Erik Fornæss. She also delivered several lectures and seminar talks on complex dynamical systems.

2. The lecture series:

Mi Hu presented a lecture series on "Introduction to complex dynamics", which is suitable for both students and experienced researchers. The first 3 lectures are on general complex dynamics in 1 variable, while the last 3-4 meetings are more in depth discussion of recent advantages on root finding methods for meromorphic functions.

3. The visitor's interests and the visit's outcomes:

The visitor's main interests are in complex dynamical systems (both one and several variables) and relevant topics (in particular in root finding).

In the visit, Mi also collaborated on a research project (on root finding algorithms) with faculty member Tuyen Trung Truong and another visitor John Erik Fornæss. Outcome of the collaboration is posted online in the preprint:

John Erik Fornæss, Mi Hu and Tuyen Trung Truong, Backtracking New Q-Newton's method for finding roots of meromorphic functions in 1 complex variable: Global convergence, and local stable/unstable curves, arXiv: 2412.02476.

4. Pleasant facts about the stay:

Besides research, Mi also joined in some social events with people in the groups Several Complex Variables and Operator Algebra, including group dinners.