



Der Vorsitzende des Promotionsausschusses

EINLADUNG

Hiermit lade ich ein zum öffentlichen Promotionskolloquium von

Herr M. Sc. Carsten Baltes
Experimentalphysik
(Prof. Dr. Franziska Lautenschläger)

am

Donnerstag, 13. März 2025, 9:00 Uhr s.t.

per Videokonferenz; Link für MS Teams: <https://msteams.link/RJ9T>
Raum für die Prüfung: Gebäude C4.3, Kleiner Hörsaal II (Raum 0.03), EG.

Thema der Dissertation:

Cytoskeletal aspects of cellular migration

The ability of cells to migrate is essential for many cellular functions. To accomplish this, cells are equipped with a dynamic filamentous network called the cytoskeleton. Actin filaments are part of the cytoskeleton and play a critical role in cellular migration. To date, actin stabilizing and destabilizing compounds have been used in migration assays, but little is known about how these compounds interact with the underlying mechanisms of cell migration. In this work, I investigate the effects of the actin stabilizer miuraenamide A (MiuA) on cell migration parameters. I show that MiuA alters actin dynamics and adhesion properties while leaving the contractility of cells unaffected. This results in a change in adhesion-based migration, while non-adhesion-based migrations remain. This new knowledge can be used to design new compounds that specifically target adhesion-based migration without altering other types of migration.

Saarbrücken, 27. Februar 2025

Prof. Dr. Uli Kazmaier