



Mathematisches Kolloquium

Am Freitag, dem 24. Juni 2022, spricht um 14 Uhr c.t. im Hörsal IV der Fachrichtung Mathematik, Gebäude E2.4, [Teams-Link](#),

Prof. Dr. Henrik Kalisch,
Universität Bergen,

über das Thema:

**Ocean waves in a changing climate: A tale of making waves, breaking waves
and broken ice**

Abstract:

Understanding the global climate system, and how to best mitigate the increasing demand on our natural resources is one of the great scientific challenges of our time. The world's oceans cover about 70% of the Earth's surface, act as a vast heat reservoir and also take up a large share of carbon dioxide from the atmosphere. As such, the oceans are at the centre of the climate puzzle.

In this lecture, we will consider various types of wave motion occurring in the world's oceans, rivers and lakes, including surface waves, internal waves and hydro-elastic waves in solid or fragmented ice sheets. We will examine the importance of internal waves, wave breaking and ice formation on the global ocean circulation, and we will show how mathematical modeling, scientific computing and laboratory experiments combine to improve our understanding of small-scale processes such as wave breaking and interactions with surface ice.

Der Gast wird von Prof. Dr. Mark Groves betreut.

Alle Interessenten und Interessentinnen sind zum Vortrag herzlich eingeladen. Der Vortrag findet im **hybriden Format** statt.

Die Dozenten der Mathematik