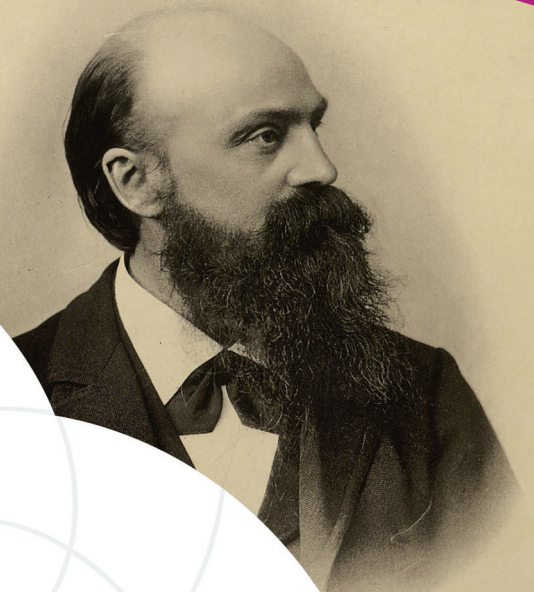




Universität
Münster



Colloquium Wilhelm Killing

Scale interactions in tropical cyclones

Prof. Dr. Rupert Klein (Freie Universität Berlin)
18 January 2024 | 2:15 pm | M5

Theoretical explanations of atmospheric flow phenomena are often based on drastic qualitative steps of model reduction. Yet, models of this kind fail to capture the hard-to-predict early stages of hurricane intensification. Here we discuss an approach that, in contrast, combines just a few well justified a priori assumptions on solution structure with systematic asymptotic analysis. Several observations and numerical simulation results are explained for the first time by the resulting reduced model. The talk will reveal explicitly, however, that probabilistic modelling must be invoked on top of classical asymptotics to address the very important impact of physical instabilities on hurricane intensification.

Zoom Meeting ID: 913 7047 4263

Tea time starts at 3:15 pm in the Cluster Common Room (Orléans-Ring 10, ground floor).

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