

Berlin Mathematical School

**BMS**



# BMS Days 2020

Tuesday 18 February 2020

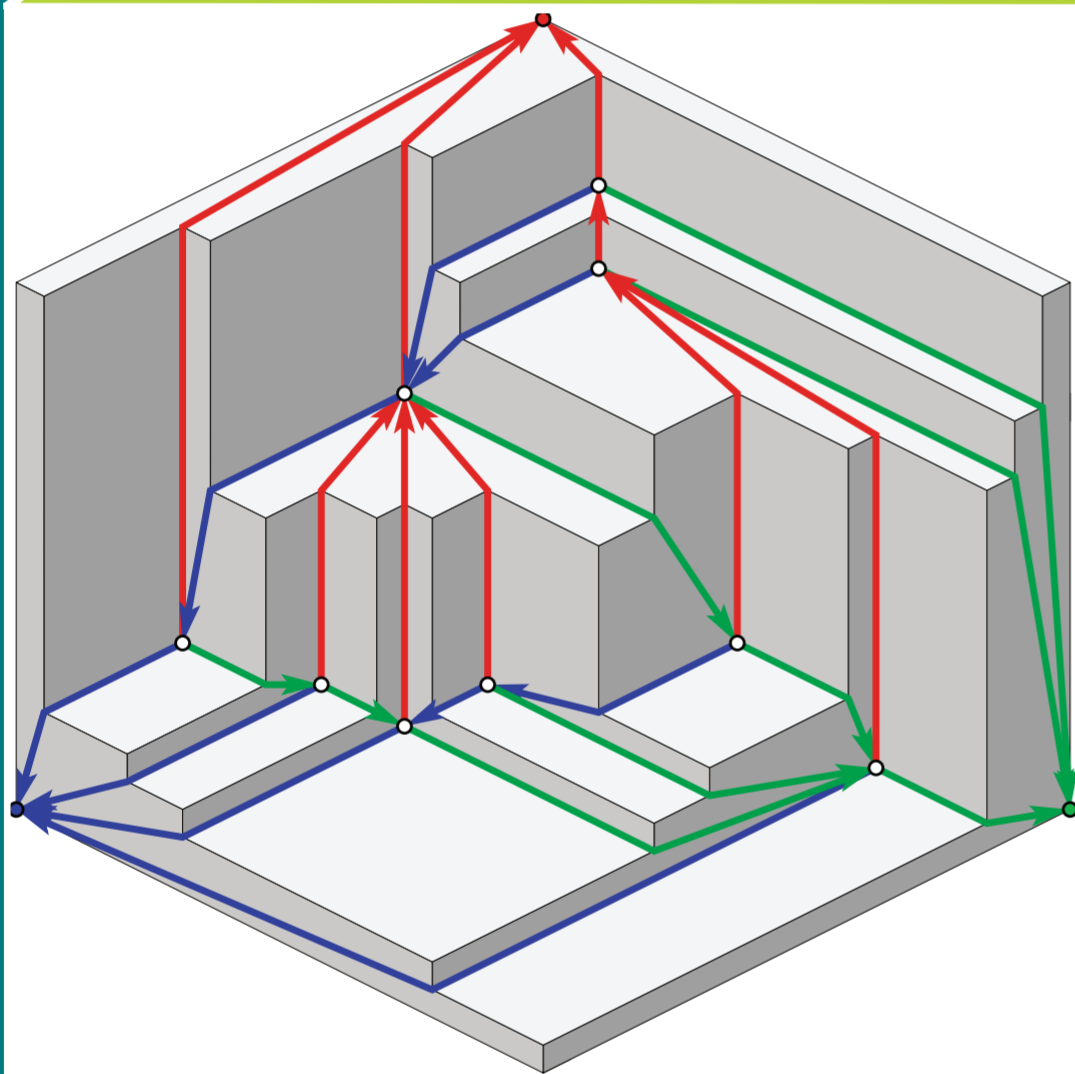
Loft, Urania, An der Urania 17, 10787 Berlin

11:00 Stefan Felsner (TU Berlin)

## Stefan Felsner: Planarity, Orientations and Order Dimension

Graphs and orders are fundamental structures in discrete mathematics. In this talk we introduce the concepts and review classical and new results connecting dimension theory of partial orders with planarity of graphs. We sketch some proof with emphasis on the tools. To this end we introduce Schnyder woods and grid intersection graphs. We also discuss contact representations of planar graphs and mention some open problems.

Stefan Felsner is a professor of discrete mathematics at TU Berlin. His scientific research focuses on graph theory, discrete geometry and ordered sets.



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