## **THE PHYSICS COLLOQUIUM**

Thursday 30 January 2025, 4:00 p.m. Nijenborgh 4, Lecture Hall 5111.0080

## Magnetic fields, jets, and turbulence in the multimessenger era

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Magnetic fields, turbulence, and jets play a critical role in corecollapse supernovae and compact-object mergers. These transients belong to the most luminous and energetic events observed in the universe and are key targets in the era of multimessenger observations.

I will discuss the unique challenges in both input physics and computational modelling for these systems and highlight recent breakthroughs in full 3D simulations.

I will pay particular attention to how these simulations can be used to reveal the engines driving these events and conclude by discussing what remains to be done to maximize what we can learn from current and future multimessenger observations

Join us for coffee starting 3:30 p.m. Refreshments will be served after the lecture.

For more information contact the host: Julia Even (<u>i.even@rug.nl</u>) Website: <u>http://www.rug.nl/research/vsi/colloquia/</u>