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**Points or vectors? The polar structure of disclinations in active and passive nematics** LUCA GIOMI, ARTHUR VROMANS, Leiden University — Topological defects play a pivotal role in the physics of liquid crystals and represent one of the most prominent and well studied aspects of mesophases. While in two-dimensional nematics, disclinations are traditionally treated as point-like objects, recent experimental studies on active nematics have suggested that half-strength disclinations might in fact possess a polar structure. In this talk I will provide a precise definition of polarity for half-strength nematic disclinations, introduce a simple and robust method to calculate this quantity from experimental and numerical data and investigate how the orientational properties of active and passive half-strength disclinations affect their dynamics.

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