



SFB1242

Nichtgleichgewichtsdynamik kondensierter
Materie in der Zeitdomäne

UNIVERSITÄT
DUISBURG
ESSEN

Open-Minded

**30.05.2023 / 10 Uhr c.t., Raum MG 272
Campus Duisburg**

Ultrafast molecular chirality: a topological connection

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Max-Born-Institut Berlin

I will describe our very recent results on marrying chiral and topological properties in ultrafast electronic response of chiral molecules in gas phase and show that it brings such benefits as new highly efficient (not relying on interaction with magnetic field) and robust chiral observables, in contrast to standard chiroptical methods. I will present two vignettes where topological connection appears in optical or electronic chiral response:

(i) Chiral topological light and topological properties of high harmonic emission, generated by such light in chiral molecular gases

(ii) Topological properties (Geometric magnetism) of ultrafast currents in chiral molecules and new classes of highly efficient enantio-sensitive observables in photoionization of chiral molecules

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