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## HL 2: Invited Talk Wegener

Time: Monday 9:15–10:00

Location: H15

### Invited Talk

HL 2.1 Mon 9:15 H15

**Metamaterials: Magnetism enters photonics** — •MARTIN WEGENER — DFG-Center for Functional Nanostructures (CFN), Universität Karlsruhe (TH),

Light is an electromagnetic wave. Nevertheless, for centuries, the field of optics & photonics has been determined exclusively by the electric-

field component of light - magnetism at optical frequencies does not occur in natural materials. However, artificial high-frequency magnetism can be accomplished in metamaterials composed of nanoscale sub-wavelength metallic building blocks that are densely packed into an effective material. After an introduction into this emerging field, we focus on recent experimental progress.