

Dr. David Phillips
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‘Rendering the Opaque Transparent’

Monday 24th October 2022, 3pm, Berry Lecture Theatre

The scattering of light was long thought to be an insurmountable barrier preventing imaging through opaque materials. However, in the last decade or so, a series of pioneering studies showed that it was possible to use a technique called wavefront shaping to characterise and subsequently cancel out complicated scattering effects. Therefore, light that has undergone multiple scattering can be unscrambled to see through opaque media, such as frosted glass, biological tissue, or multimode optical fibers. However, there are several major challenges to overcome before wavefront shaping technology can be translated from the laboratory to ‘real-world’ settings. In this colloquium, I will give an introduction to this research area, and outline some of the approaches being developed in my group to tackle outstanding challenges. I hope to give a broad perspective on the future of this bright emerging field.

**The Colloquia will be followed by tea and coffee in the staff common room.
For further details please contact phys-exec-office@bristol.ac.uk**



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Physics Colloquium – Autumn Term