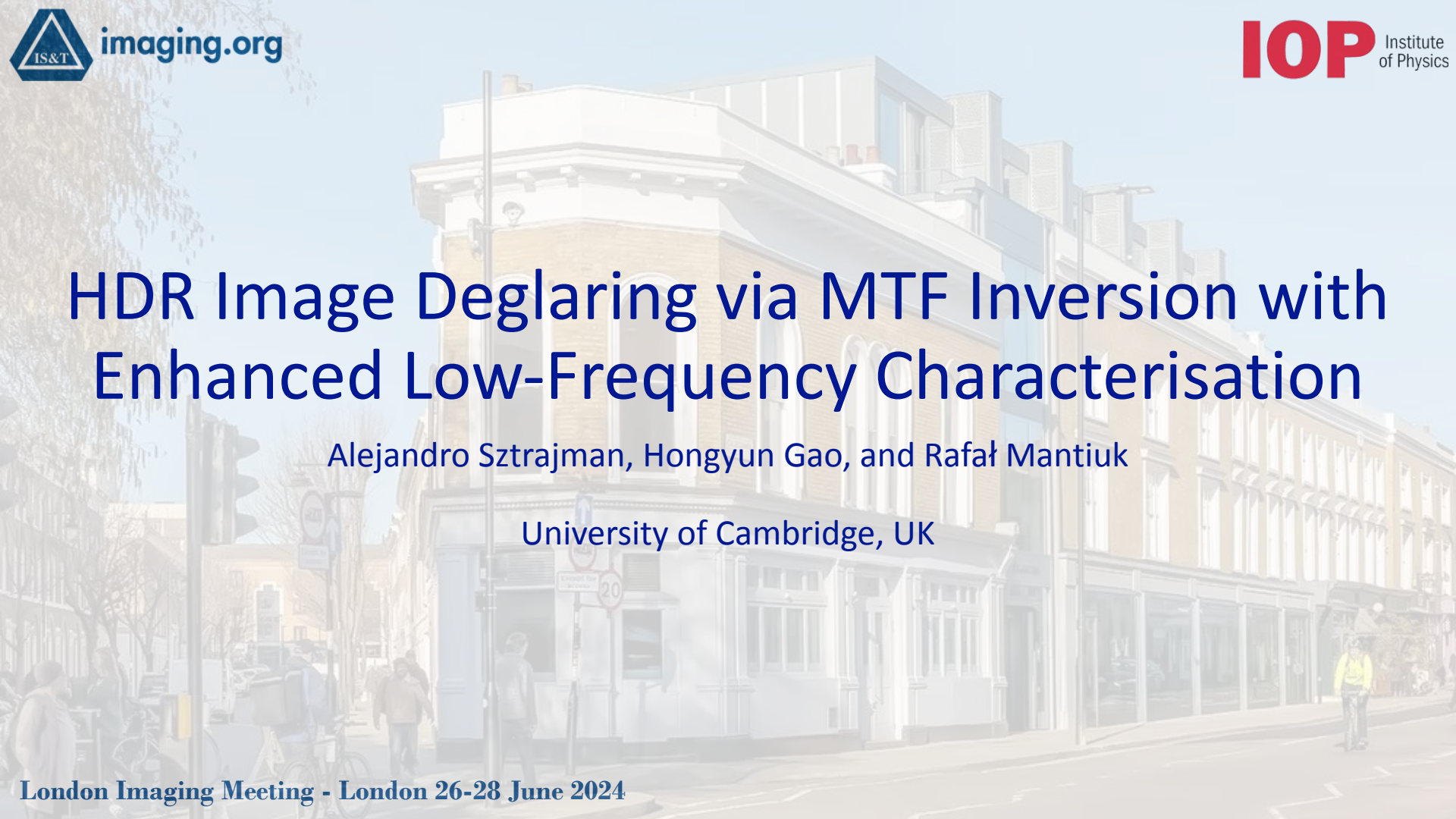

# HDR Image Deglaring via MTF Inversion with Enhanced Low-Frequency Characterisation

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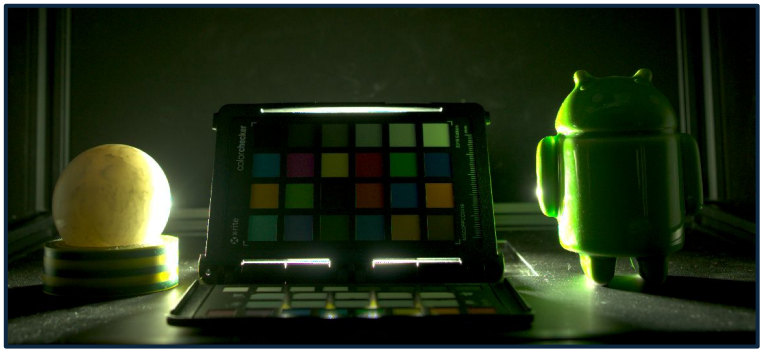
London Imaging Meeting - London 26-28 June 2024

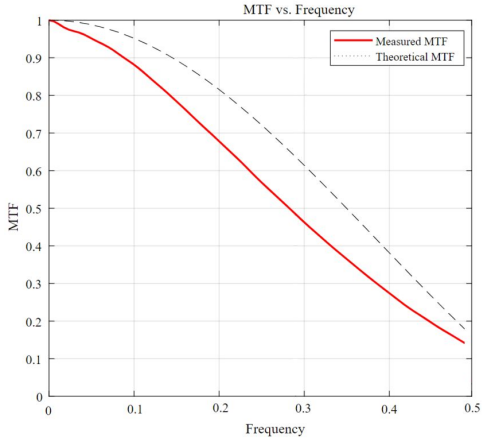
# Introduction

HDR images often suffer from **glare**, obscuring details and reducing image quality.



Multiple **applications of image deglaring**: photography, computer vision, medical imaging, etc.

**Traditional methods** for deglaring are based on the estimation of the Modulated Transfer Function (MTF) of the camera as a function of the spatial frequency of the signal.



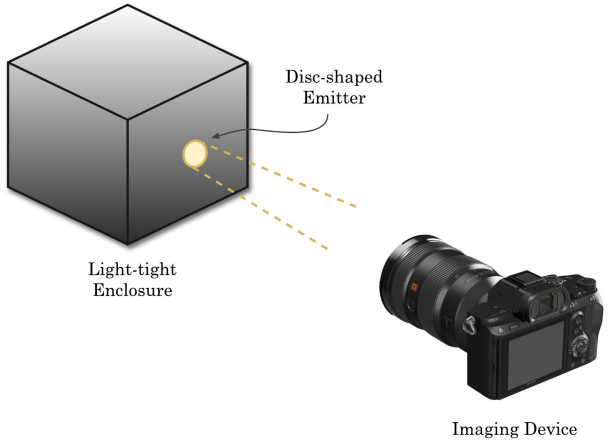

However, they struggle to accurately characterise **low-frequency** components in the MTF, leading to an incomplete glare removal.

# Method and Results

We propose a **method** for camera **MTF estimation** that improves the characterisation of **low-frequencies components**.

Our method is based on a **simple capture setup** with a fixed-shape emitter. The shape of the MTF is modeled as a parametric function, and the values of the parameters are estimated by optimising a differentiable implementation of the image formation equation.

**Capture setup**




**GT** **Slanted-Edge** **Ours**