

Session Program

7-11 Jul 2025



National Astronomy Meeting (NAM) 2025

The Golden Era of Gravitational Lensing: from Micro to Macro

Teaching and Learning Centre (TLC)
Durham University South Road Durham DH1 3LS

Monday 7 July

09:00

The Golden Era of Gravitational Lensing: from Micro to Macro

Session | Location: TLC106

09:00-09:15

The COSMOS-Web Lens Survey (COWLS): Discovery of >100 high redshift strong lenses in contiguous JWST imaging

09:15-09:30

Line-of-sight shear: progress and challenges

Speaker

Natalie Hogg

09:30-09:45

Probing Dark Matter Substructures with Free-Form Modelling: A Case Study of the 'Jackpot' Strong Lens

Speaker

Xiaoyue Cao

09:45-10:00

Super-Concentration or Unaccounted Light? Unveiling the True Nature of the Subhalo in SDSSJ0946+1006

10:00-10:15

Detecting subhalos with very steep inner-density profiles using strong gravitational lensing

Speaker

Kassidy Kollmann

10:15-10:30

Group-Scale Lenses with JWST: Probing Magnified High-Redshift Galaxies And Extending Cosmological Distance Measurements

Speaker

Niek Wielders

10:30

14:15

The Golden Era of Gravitational Lensing: from Micro to Macro

Session | Location: TLC106

14:15-14:20

Welcome remarks

14:20-14:35

The roadmap to 100,000 strong lenses with Euclid

Speaker

Natalie Lines

14:35-14:50

Constraining Dark Substructures Beyond the Diffraction Limit with Cluster Lens

14:50-15:05

Empirical dark matter halo profiles

15:05-15:20 **The era of simulation-based inference for gravitational lensing**

15:20-15:35

High resolution dark matter cartography with JWST: Overdensity properties studied through their weak lensing signal

15:35-15:45 **Poster Flash Presentations**

The Golden Era of Gravitational Lensing: from Micro to Macro

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16:15-16:25 **Welcome remarks**

16:25-16:40

Stars as cosmic scales: measuring stellar mass with microlensed supernovae

16:40-16:55

Gravitationally lensed stars and the stellar initial mass function at $z \sim 1$ galaxies

Speaker

Sung Kei Li

16:55-17:10

Quasi-periodic lensed light curves of stars by supermassive black hole binaries

Speaker

Hanxi Wang

17:10-17:25

Residual test to search for microlensing signatures in strongly lensed gravitational wave signals

Speaker

Eungwang Seo

17:25-17:40

The Magnified Waltz: Simulating Light Curves of Binary Stars Passing through Micro-Caustics in Strong Lensing Galaxy Clusters

Speaker

Wenwen Zheng