



# The Large Synoptic Survey Telescope: Meeting Introduction

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*LSST:UK Project Leader*



THE UNIVERSITY *of* EDINBURGH

# Large Synoptic Survey Telescope

A 10-year colour movie  
of 40 billion stars & galaxies,  
starting in 2022

April 25





# The scope of LSST science

- Contents:
  - Introduction
  - LSST System Design
  - System Performance
  - Education and Public Outreach
  - The Solar System
  - Stellar Populations
  - Milky Way and Local Volume Structure
  - The Transient and Variable Universe
  - Galaxies
  - Active Galactic Nuclei
  - Supernovae
  - Strong Lenses
  - Large-Scale Structure
  - Weak Lensing
  - Cosmological Physics

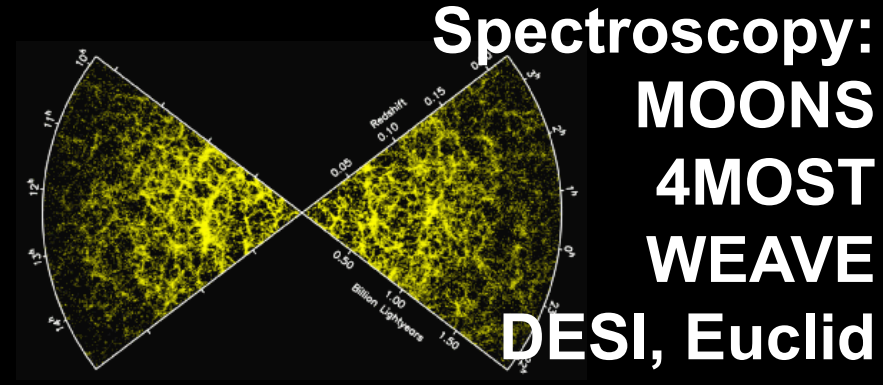


arXiv:0912.0201

# UK LSST Synergies



**Gaia**



**Spectroscopy:  
MOONS  
4MOST  
WEAVE  
DESI, Euclid**



**Infra-red:  
UKIDSS, VISTA, Euclid**



**SKA**

The UK has an unprecedented opportunity to lead the exploitation of this combined suite of facilities



# UK participation in LSST

**LSST:UK  
Consortium**  
(All UK astro groups)

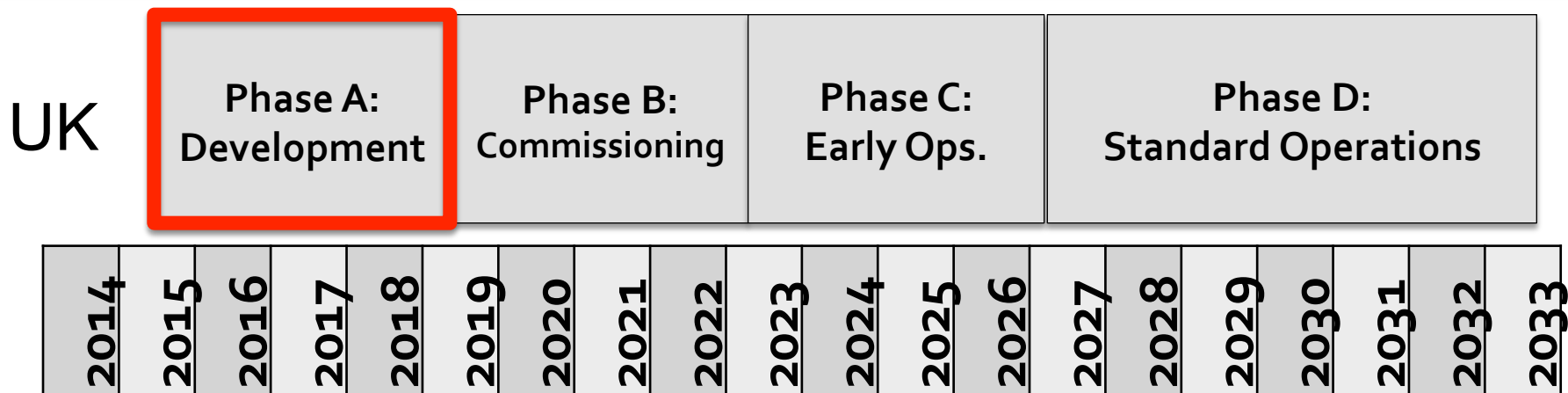


Defines the  
programme  
of work for...

Works on  
behalf of...

**LSST:UK Science Centre (LUSC)**  
(Funded effort - currently in 7 universities)

# LSST:UK Science Centre programme



- Phase A funding from STFC started in 2015
  - £2.7M for prototyping UK Data Access Centre and designing/developing data analysis software
  - £15M operations contribution: data rights for 100 faculty + 400 postdocs/students from UK



# Programme for today

- LSST status



Beth Willman  
LSST Deputy Director



Ian Shipsey  
LSST camera team (2008-)

# Programme for today

- LSST status
- **UK science interests in LSST**
  - Solar System – *Wes Fraser*
  - Transients & Variable Stars – *Mark Sullivan*
  - Stars, Milky Way & Local Volume – *Phil Lucas*
  - Galaxies – *Sugata Kaviraj*
  - Active Galactic Nuclei – *Carole Mundell*
  - (lunch)
  - Dark Energy science – *Benjamin Joachimi*



# Programme for today

- LSST status
- UK science interests in LSST
- **Synergies with other UK activities**
  - Informatics & Statistics – *Jason McEwen*
  - Synergies with Euclid & SKA – *David Bacon*
  - LSST & Liverpool Telescope 2 – *Chris Copperwheat*
  - LSST & UK particle physics – *Ian Shipsey*

# LSST Statistics at Lunchtime

A meeting largely to answer statisticians' questions about LSST

Bring your own sandwiches to the  
Linnean Society Council Room

Organiser – Tim Naylor

Anyone who has not so far been invited is welcome to attend, but please e-mail [timn@astro.ex.ac.uk](mailto:timn@astro.ex.ac.uk)



# Programme for today

- LSST status
  - UK science interests in LSST
  - Synergies with other UK activities
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- Further information
  - Website: *www.lsst.ac.uk*
  - **Wiki: *lsst-uk.atlassian.net***
  - Email: *rgm@roe.ac.uk*