

# Galaxies, Dark-Matter & Black Holes

## Introduction(Ferguson)

- Key high-level science questions
- Goals of this roadmap
- Relation of this roadmap to the science collaborations
- Relation to DESC whitepaper

## Science background

- Galaxies (Ferguson)
- Strong lensing (Keeton)
- Weak Lensing (Tyson)
- Black holes (Richards)
- Large-Scale Structure (Ho)
- Astro-informatics (Borne)

## Roadmap

- Introduction(Ferguson)
  - A. Techniques, Algorithms, Software
  - B. Precursor observations & synergy with other facilities
  - C. Theory & simulations
  - D. Databases, data services & queries
  - E. Programmatic issues
- Top 10 short-term tasks (lead author TBD)
- Top 10 longer-term tasks (lead author TBD)

## Appendix: tasks lists by science area

- Galaxies (Ferguson)
  - Short-term
  - Longer-term
- Strong lensing (Keeton)
- Weak Lensing (Tyson)
- Black holes (Richards)
- Large-Scale Structure (Ho)
- Astro-informatics (Borne)

## Appendix: Most relevant DESC tasks (volunteer?)