

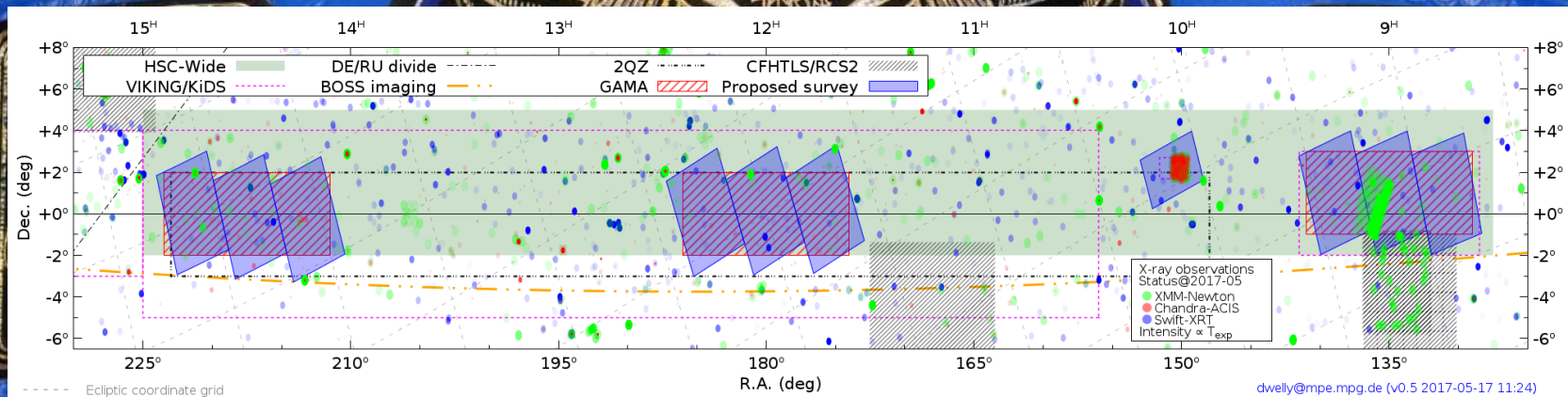


eFEDS planning

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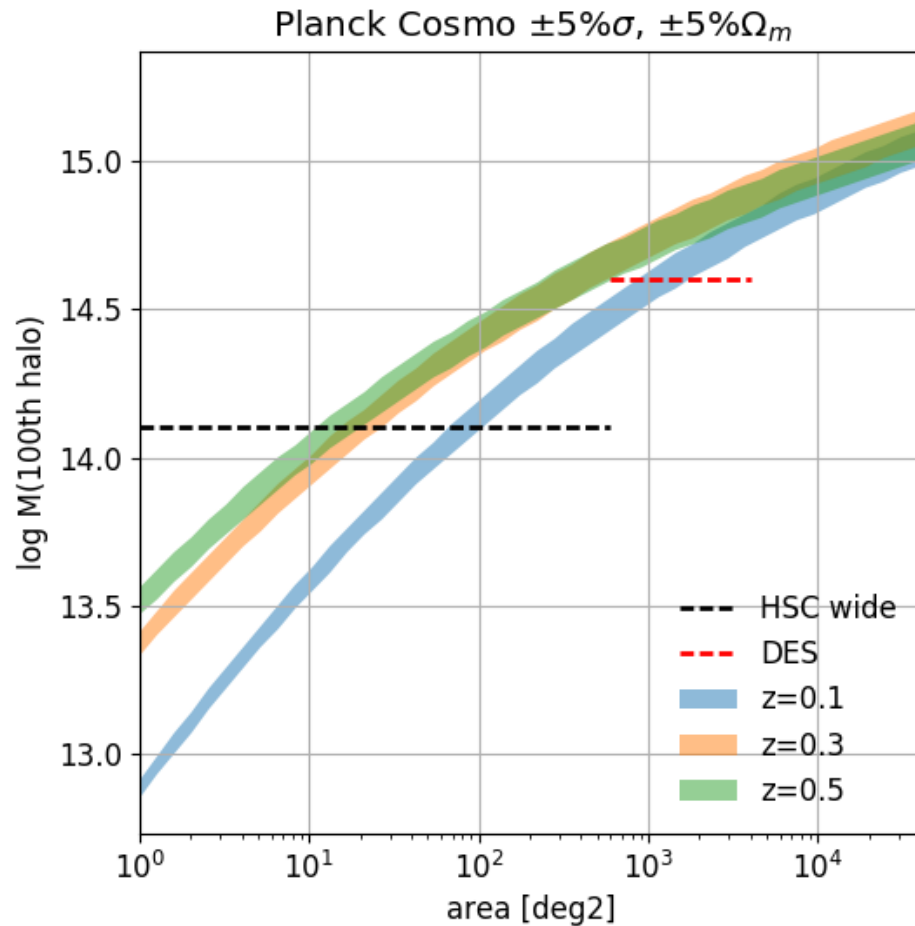
eFEDS:eROSITA Full Equatorial-Depth Survey



eFEDS location: HSC+VIKING/KiDS+GAMA and COSMOS

Plot by Tom Dwelly

Why do we need it?



eFEDS projects

- Testing eROSITA cluster detection:
 - We will probe the most challenging systems!
 - Test that we are ready to kick the cosmology ball!
 - All that ready to work on in June 2019
 - Deliver realistic timeline for main eROSITA cosmology work
- eFEDS main cosmology
 - Validation of cluster detection pipelines by their ability to achieve cosmology
 - HSC mass calibration
 - KIDS mass calibration
 - Various ways to do cluster ID: cross-check
- eFEDS-HSC other
- eFEDS-GAMA other

Project Planner

Select a period to highlight at right. A legend

FP/1
LL/1
/A/1
FP/1

Actual Start

% Complete

Actual (beyond plan)

% Complete (beyond plan)

ACTIVITY

2020

2021

2022

FP/1 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38

eFEDS X-ray catalog

eFEDS Optical ID

eFEDS Mass measurements

eFEDS Calibration of X-ray

eFEDS Cosmology

eRASS1 X-ray catalog

eRASS1 optical ID

eRASS1 mass measurement

eRASS1 calibration

eRASS1 scaling relations

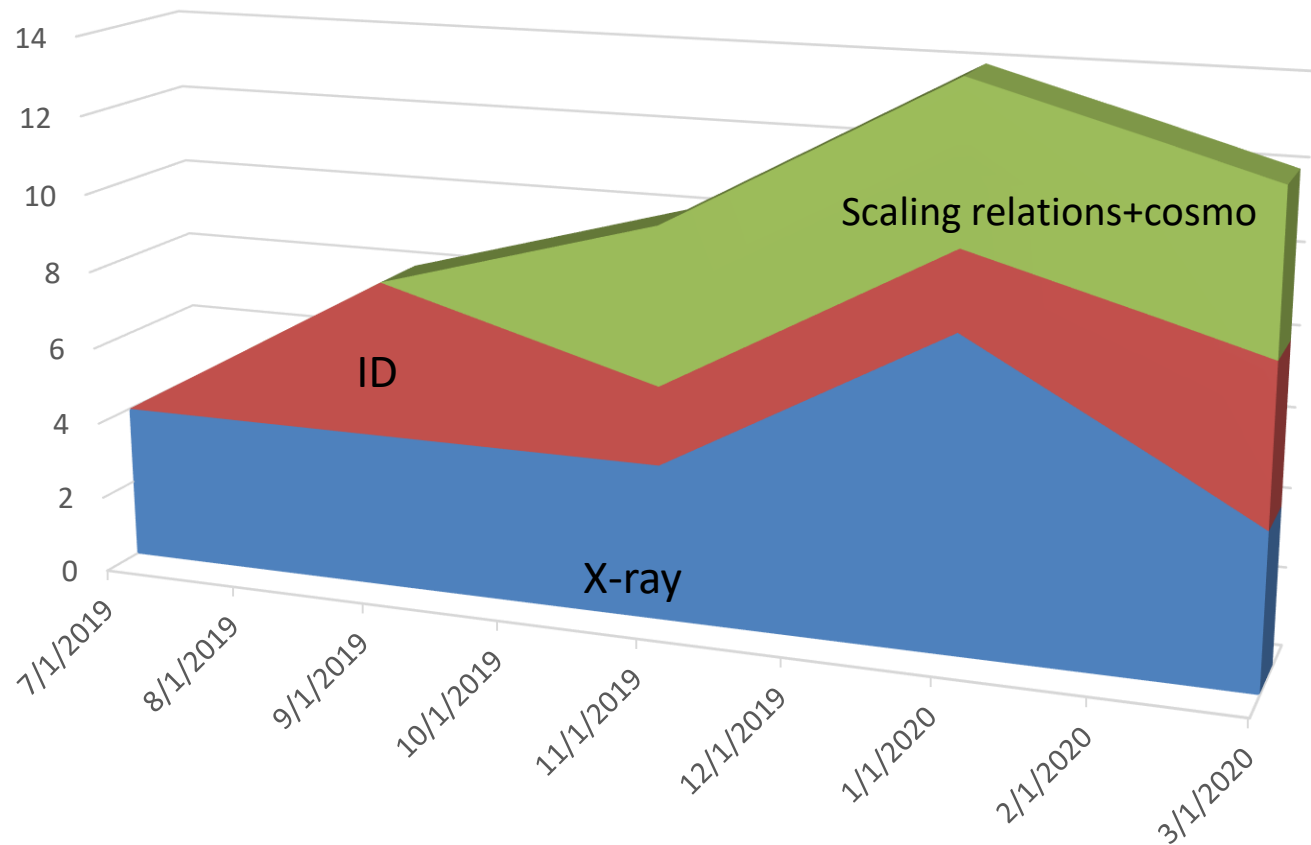
eRASS1 cosmology

Publication deadline?

Publication deadline?

Example of manpower distribution

FTE



■ Series 1 ■ Series 2 ■ Series 3

eROSITA, XRU, 6/2017

eFEDS-HSC

<http://hscerosita.pbworks.com/w/page/124298769/Clusterprojects>

eFEDS-HSC: Project A

A) Mass calibration and cluster cosmology for eFEDS clusters

A1: Identification of eFEDS extended X-ray sources as galaxy clusters using HSC data. Comparison between HSC, DECaLS and PS1 cluster identification.

A2: Robust WL mass measurement for eFEDS clusters

A3: Calibration of mass-X scaling relations with HSC weak lensing for cluster cosmology

A4: Cosmological constraints from an abundance of eFEDS clusters

A5: Optical properties of eFEDS clusters

A6: Multivariate scaling relations

eFEDS. Project B

B) X-ray and multi-wavelength studies for optically-selected clusters

B1: Stacked X-ray analysis of optically selected clusters out to $z \sim 1.4$

B2: Scaling relations for optical clusters

Specific of eFEDS projects

- Primarily a test on the X-ray group, as multiwavelength rely on the HSC collaboration
- Dependence on external collaborators – potential problems with the schedule (we already see it in the pilot project): we can remove it by using KIDS. This will also test our readiness on the calibration
- On cluster ID, the plan is to run various identification pipelines – and we can start testing it already, using GAMA galaxy group catalogs