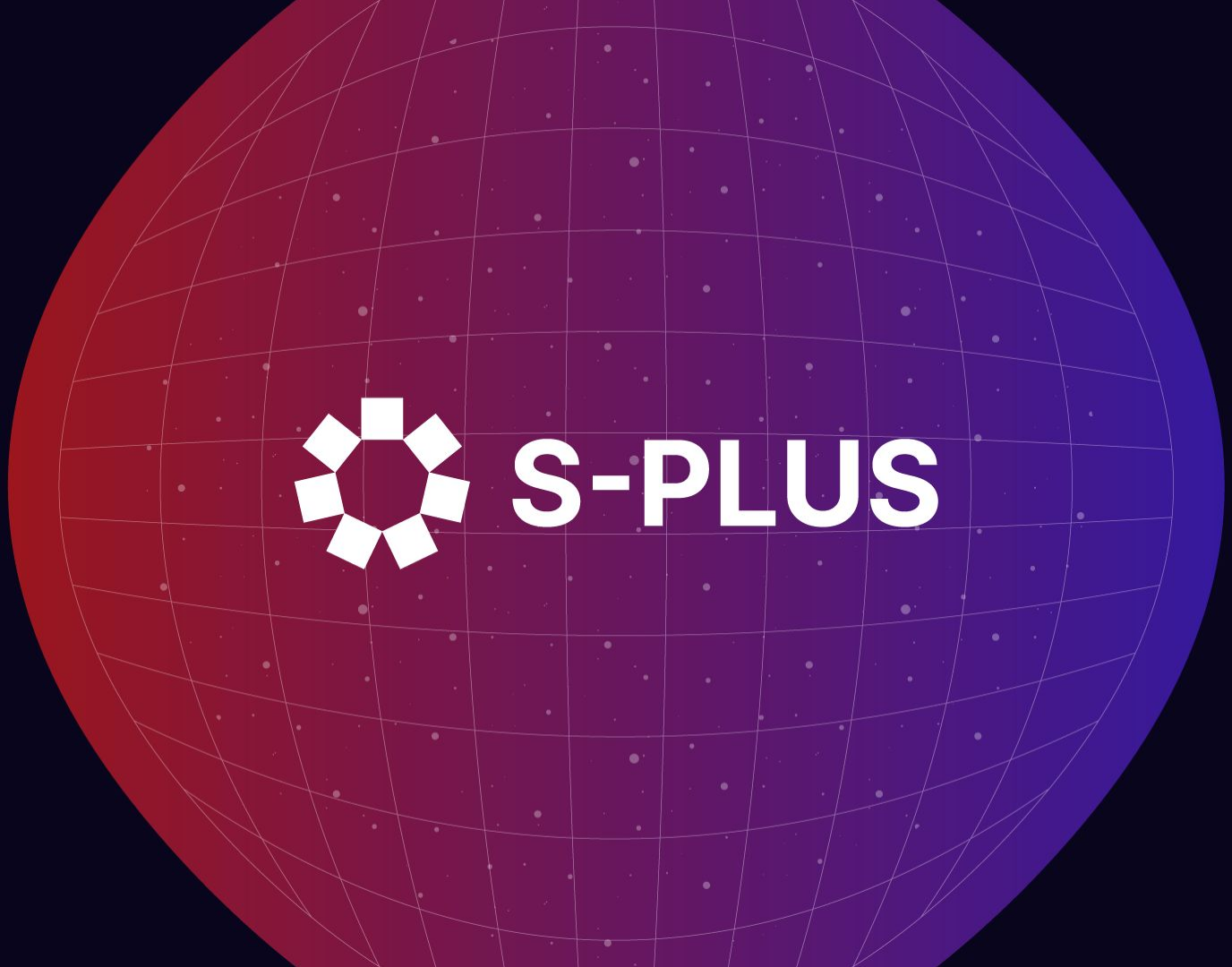

S-PLUS

S-PLUS

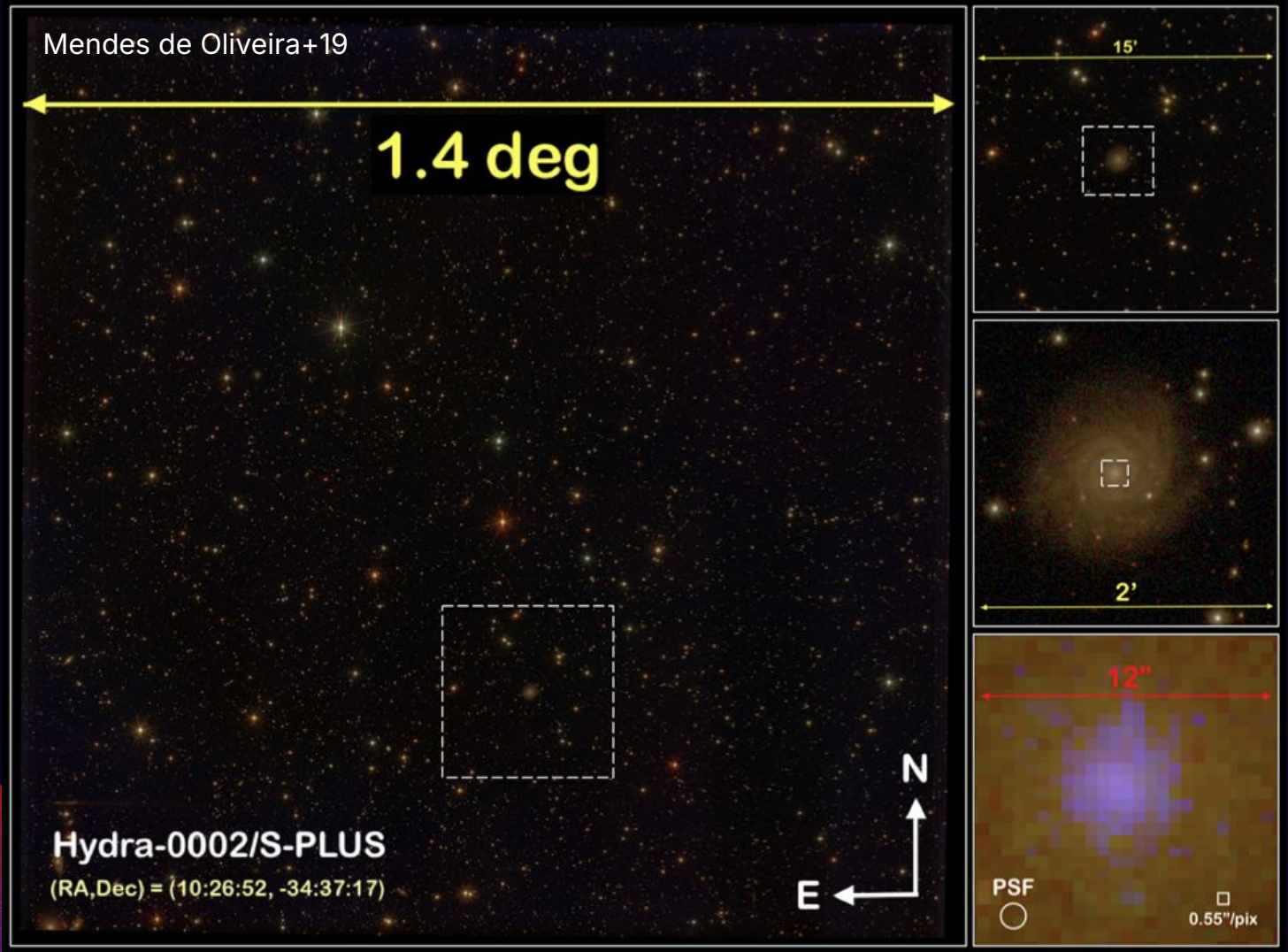
Telescope: 80-cm telescope (T80S)

Pixel scale: 0.55"/pix

FoV: 1.4×1.4 deg^2

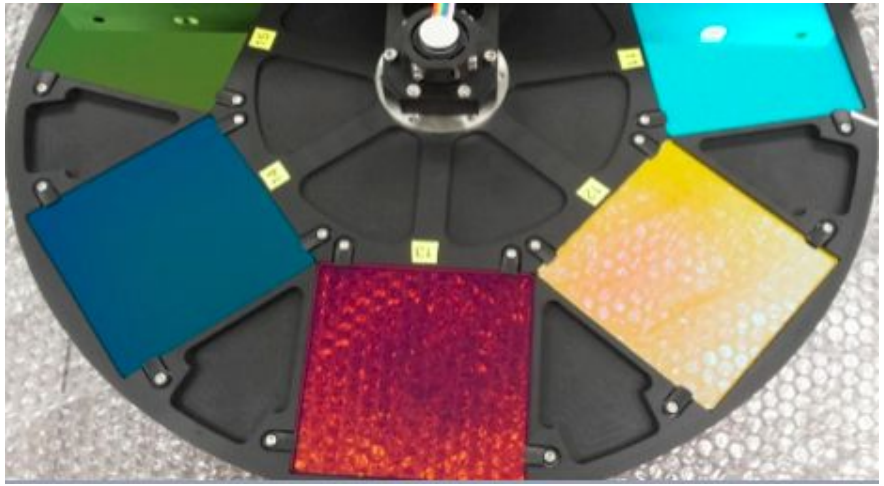
Cerro Tololo Inter-American Observatory, Chile

T80-South


Mendes de Oliveira+19
1.4 deg
15'
2'
12"
Hydra-0002/S-PLUS
(RA,Dec) = (10:26:52, -34:37:17)
N
E
PSF
0.55"/pix

The 12-band filter system

Our goal is to cover over 9300 square degrees of the sky in 12 filters (the Javalambre filter system; Marin et al. 2012, Cenarro et al. 2019)

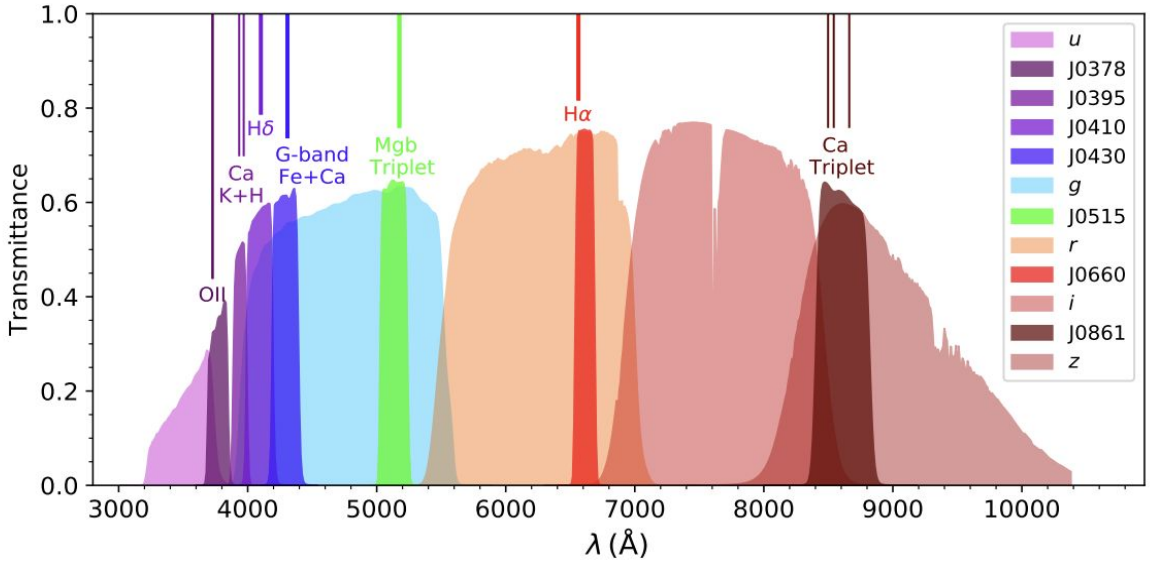


Southern Photometric
Local Universe Survey

2 filter wheels, 6 filters in each

The 12-band filter system

Our goal is to cover over 9300 square degrees of the sky in 12 filters (the Javalambre filter system; Marin et al. 2012, Cenarro et al. 2019)



Almeida-Fernandes+22

S-PLUS data flow

Observations

Reduction

Photometry

Photometric Calibration

Catalogs

Value Added Catalogs

S-PLUS operational/technical team

Telescope Operations


Dra Marilia Sartori
(IAG-USP)


Dr Marcos Faria
(LNA)


Dra Maiara Carvalho
(IAG-USP)


André Santos
(CBPF)


Dr Luidhy Santana
(CBPF)


MSc André Figueiredo
(IAG-USP)


Dra Ciria Lima
(ULS)


Dra Bárbara Cubillos
(ULS)


Dr Luis Gutierrez
(UNLP)

Data Processing, Software, Value-added catalogs


Gustavo Schwarz
(Mackenzie-SP/IAG-USP)


Dr Fabio Herpich
(CASU/IoA)


Dr Felipe Fernandes
(OV-UFRJ)


Dr Eduardo Lacerda
(IAG-USP)


MSc Erik Lima
(IAG-USP)


Dra Lilianne Nakazono
(IF-USP)

P.I.


Prof. Claudia Mendes de Oliveira
(IAG-USP)

S-PLUS - Five surveys in one

(1) **Main Survey (MS)** mainly over DES, KIDS, ATLAS areas + new areas – total area of over 9300 sq deg,12 filters, 3 exp/filter, depth to typically 21 AB in broad bands and 19.5 AB (3 sigma detection) in narrow bands, no cadence

(2) **Ultra-short survey** – 12 filters, 1 exposure on each field of the area of the Main and Galactic surveys. Exposure times 1/12 of the exposure time of MS single image

(3) **Variability survey** – This is open to the S-PLUS community once a year to receive observing proposals.

(4) **Galactic survey** – two regions that totalize 1300 sq deg in regions coincident and close to VVV and VPHAS+. Filters: all. Same exposure times as Main Survey, no cadence

(5) **Marble fields** – observed whenever seeing is bad – The central field of the Hydra cluster, SMC, Dorado group, M83. 12 filters, MS exposure times.

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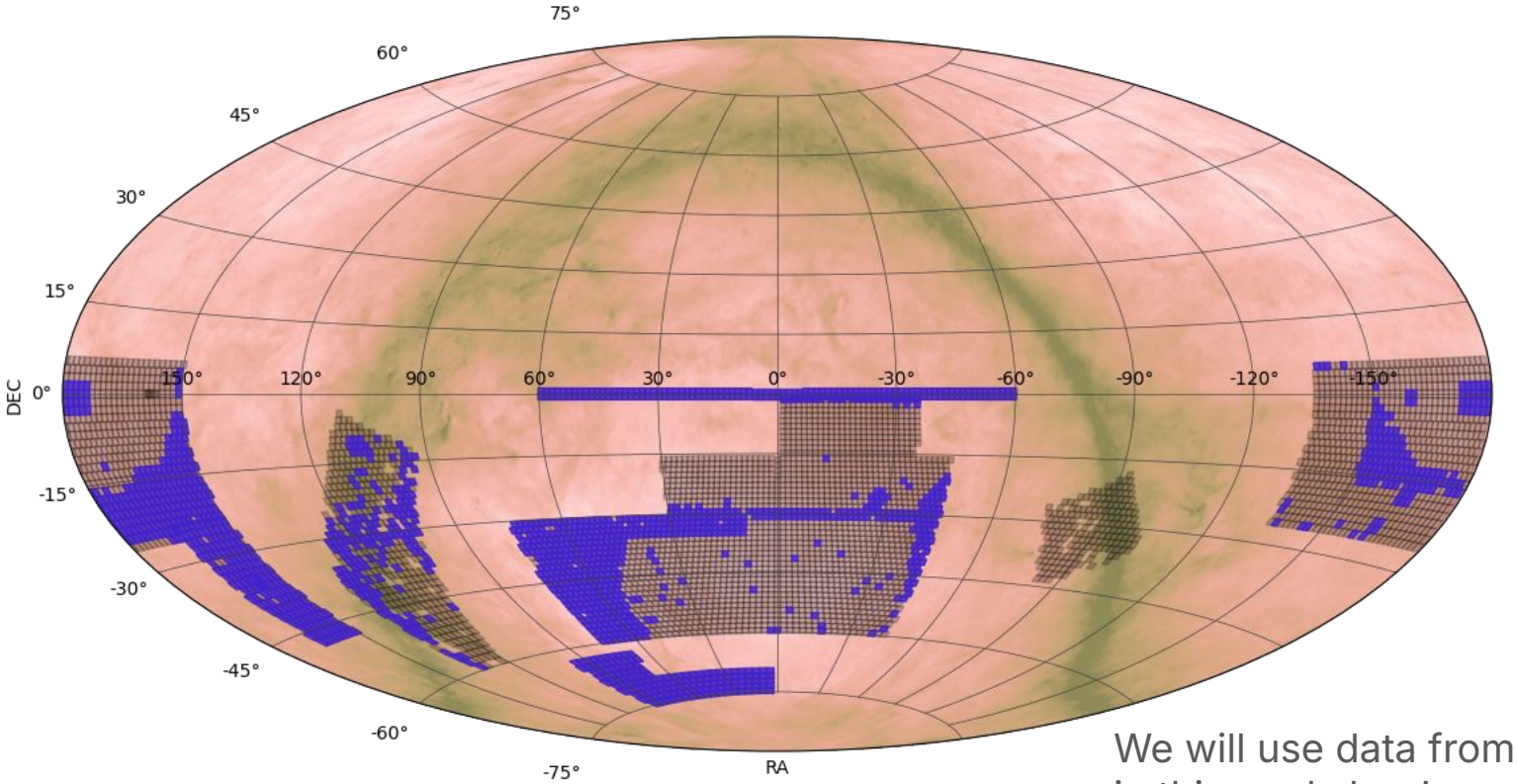
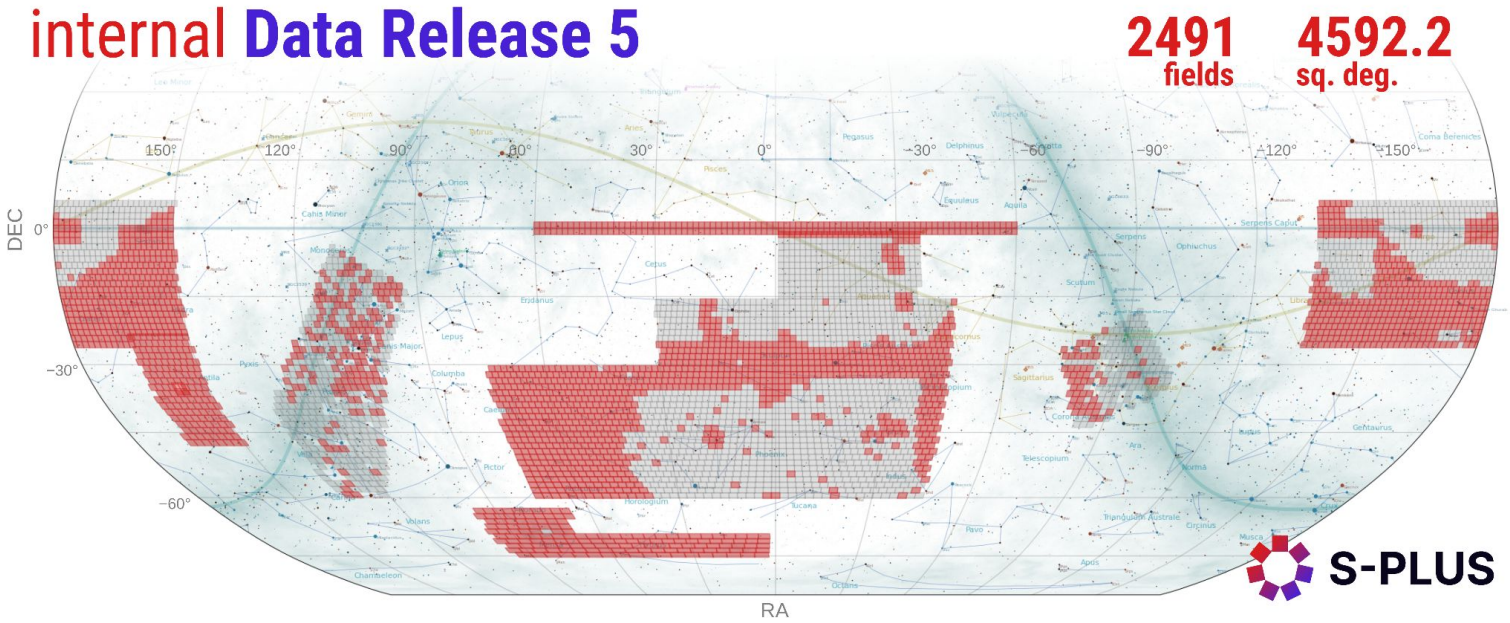
S-PLUS DR4 Footprint



We will use data from DR4 in this workshop!

Internal Data Release 5 (iDR5)

Will be publicly available in August 2025. At this moment, iDR5 is only available for members of the S-PLUS collaboration.



Internal Data Release 5 (iDR5)

Will be publicly available in August 2025. At this moment, iDR5 is only available for members of the S-PLUS collaboration.

Can I become member of the S-PLUS collaboration?
The S-PLUS consortium is open to all scientists from Brazil and the participating institutes in other countries (University of La Serena), as well as any member of the J-PLUS and J-PAS collaborations

How to become member?
Write to splus@iag.usp.br with the email you used to create your login in https://splus.cloud. Navigate to https://splus.cloud/user and provide your full name and affiliation details. We will then give you access to the internal data releases and add you to the mailing list.

S-PLUS

Value-added catalogs

STAR-QSO-GALAXY classification

S-PLUS

Value-added catalogs

STAR-QSO-GALAXY classification

Photometric redshifts of quasars (only DR4), and galaxies

S-PLUS

Value-added catalogs

STAR-QSO-GALAXY classification

Photometric redshifts of quasars (only DR4), and galaxies

Extinction (only iDR5)

S-PLUS

Value-added catalogs

STAR-QSO-GALAXY classification

Photometric redshifts of quasars (only DR4), and galaxies

Extinction (only iDR5)

Mask of objects affected by saturated stars (only iDR5)

S-P

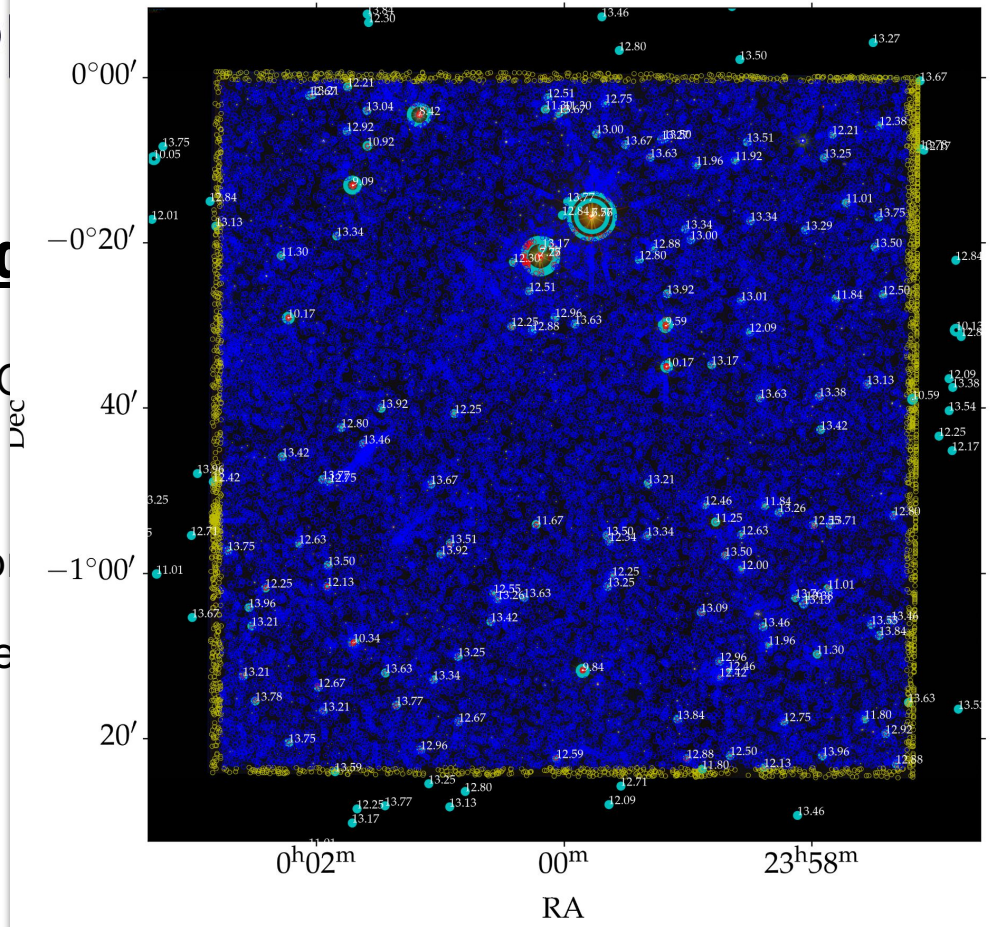
Value-add

STAR-QSO-C

Photometric

Extinction (o

Mask of obje



S-PLUS

Value-added catalogs

STAR-QSO-GALAXY classification

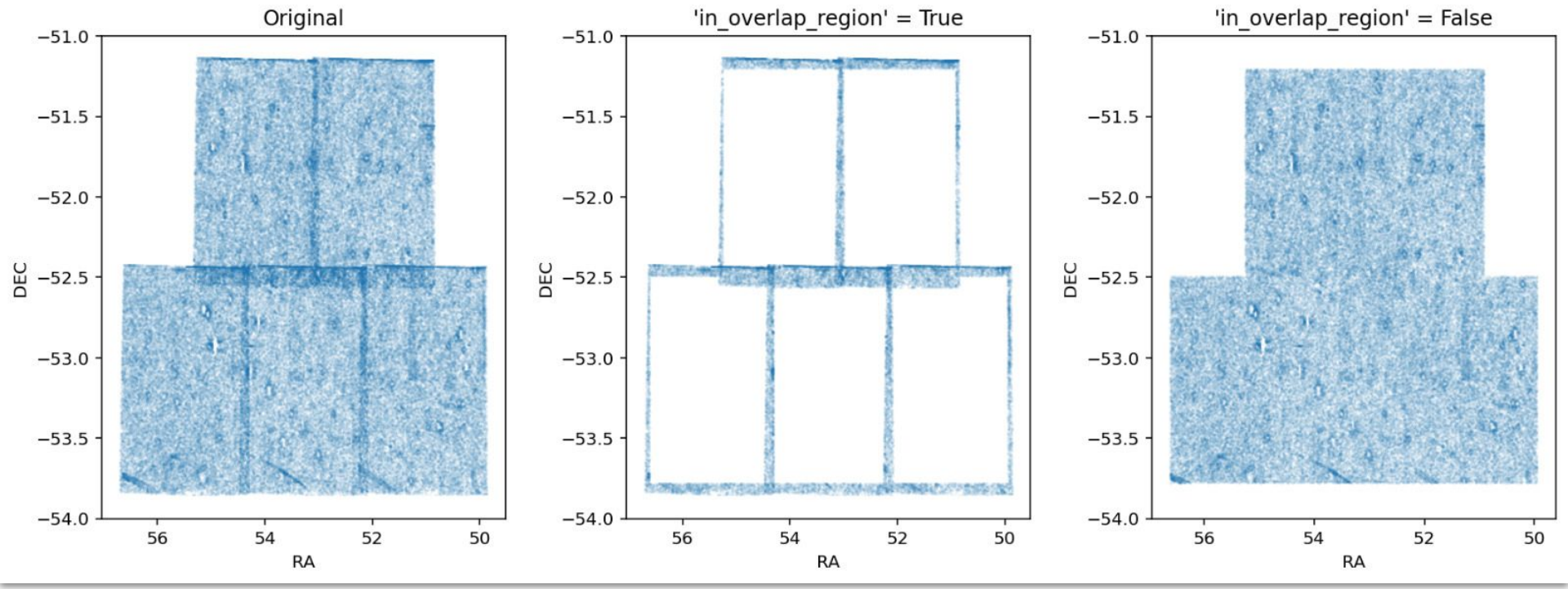
Photometric redshifts of quasars (only DR4), and galaxies

Extinction (only iDR5)

Mask of objects affected by saturated stars (only iDR5)

Mask of objects in overlap between fields (only iDR5)

S-PLUS


Original
'in_overlap_region' = True
'in_overlap_region' = False
DEC
RA
−51.0
−51.5
−52.0
−52.5
−53.0
−53.5
−54.0
56
54
52
50

Goals for this workshop

- [You] Learn how to access S-PLUS data
- [You] Get familiarized with the data and tools
- [Us] Get your feedback regarding our products and documentation

Getting prepared

Notebooks are in: https://github.com/splus-collab/XLVII_SAB_workshop

Opening it in https://colab.research.google.com/ is recommended for now if you are a beginner in git or jupyter. Do as follows: *Open notebook > GitHub > [paste the GitHub link above]*

If you haven't yet, please register to https://splus.cloud!!!