

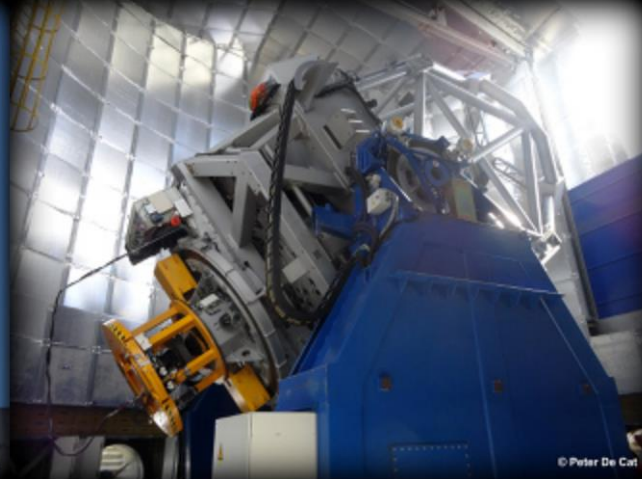
BINA

The Belgo-Indian Network for Astronomy and Astrophysics *Summary of the second meeting – Brussels 2018/10/9-12*

Philippe Prugniel



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© Peter De Cal



BINA 2

There was a first meeting...

2016 Nov. 15-18 in Nainital

100+ participants from India, Belgium, and other countries



BINA as an expanding international collaboration

2nd BINA workshop

Royal Observatory of Belgium
October 9-12, 2018
Brussels



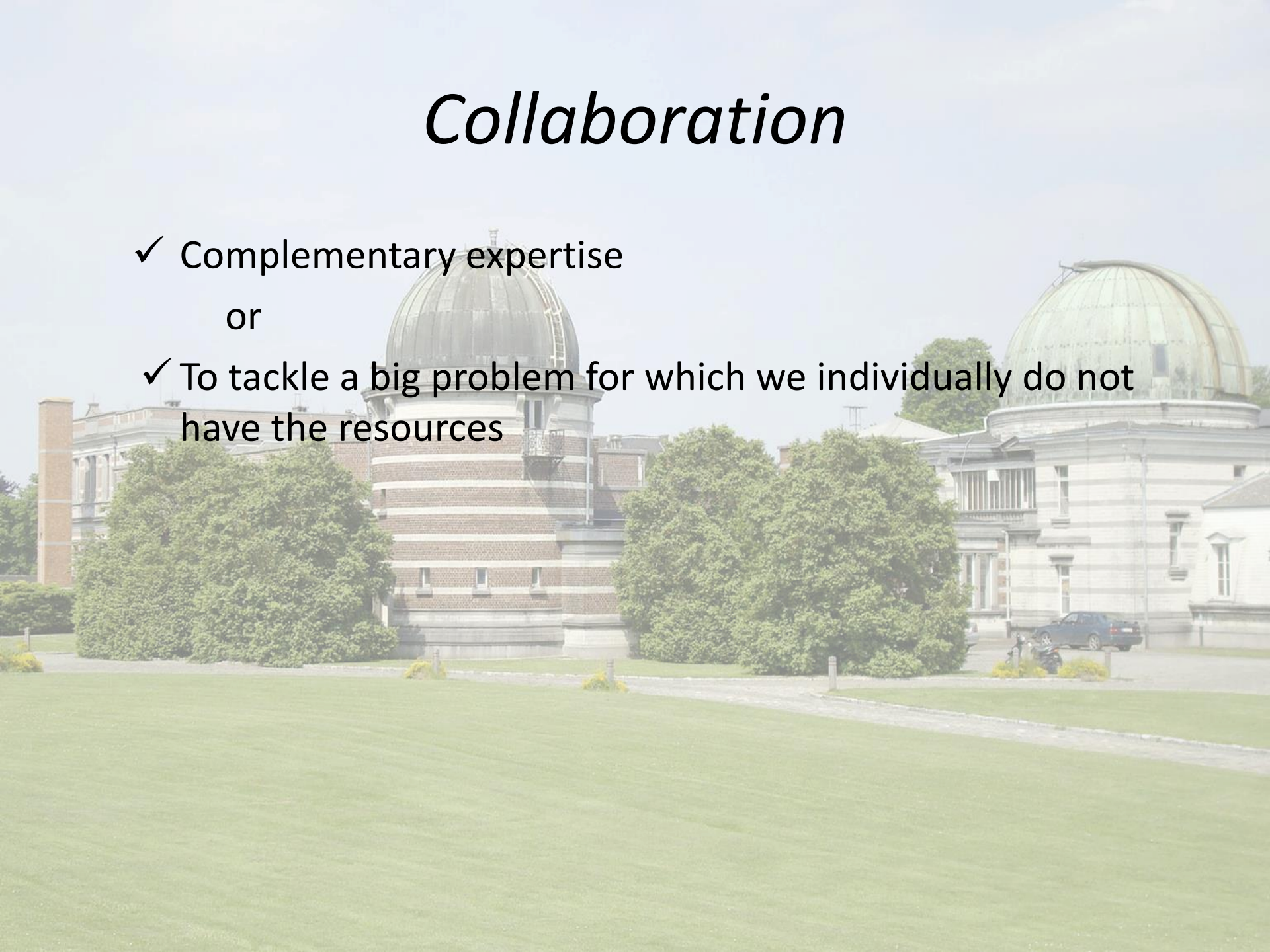
Aravind Ganesan (IIS, India)
Suresh Joshi (AFSS, India)
Piero De Gas (IOB, Belgium)
Alan Jorissen (ULB, Belgium)
Alexander P. Singh (IIS, India)
Devendra K. Mishra (IIS, India)
Michael De Braker (ULB, Belgium)
Patricia Lempere (IOB, Belgium; chair)
Karin Kolberg (ULB Louvain-la-Neuve, Belgium)

Joint Organizing Committee

Lore Vermeulen
Patrick Lempere
Wilde Lempere
Paul Van Gansbeke
Martin Brumby
Piero De Gas (chair)
Jean Van der Meer

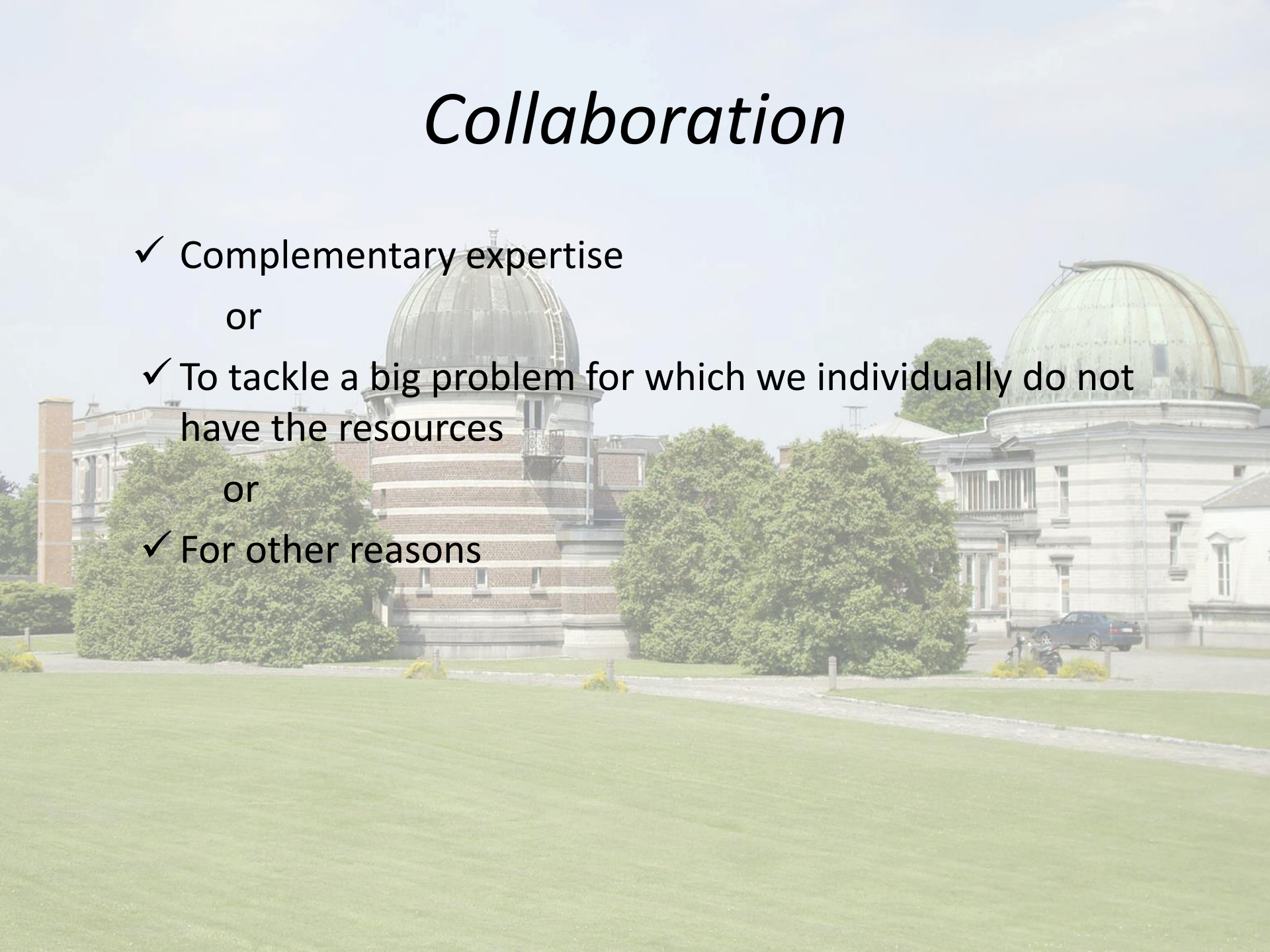
Collaboration

- ✓ Complementary expertise
or
- ✓ To tackle a big problem for which we individually do not
have the resources



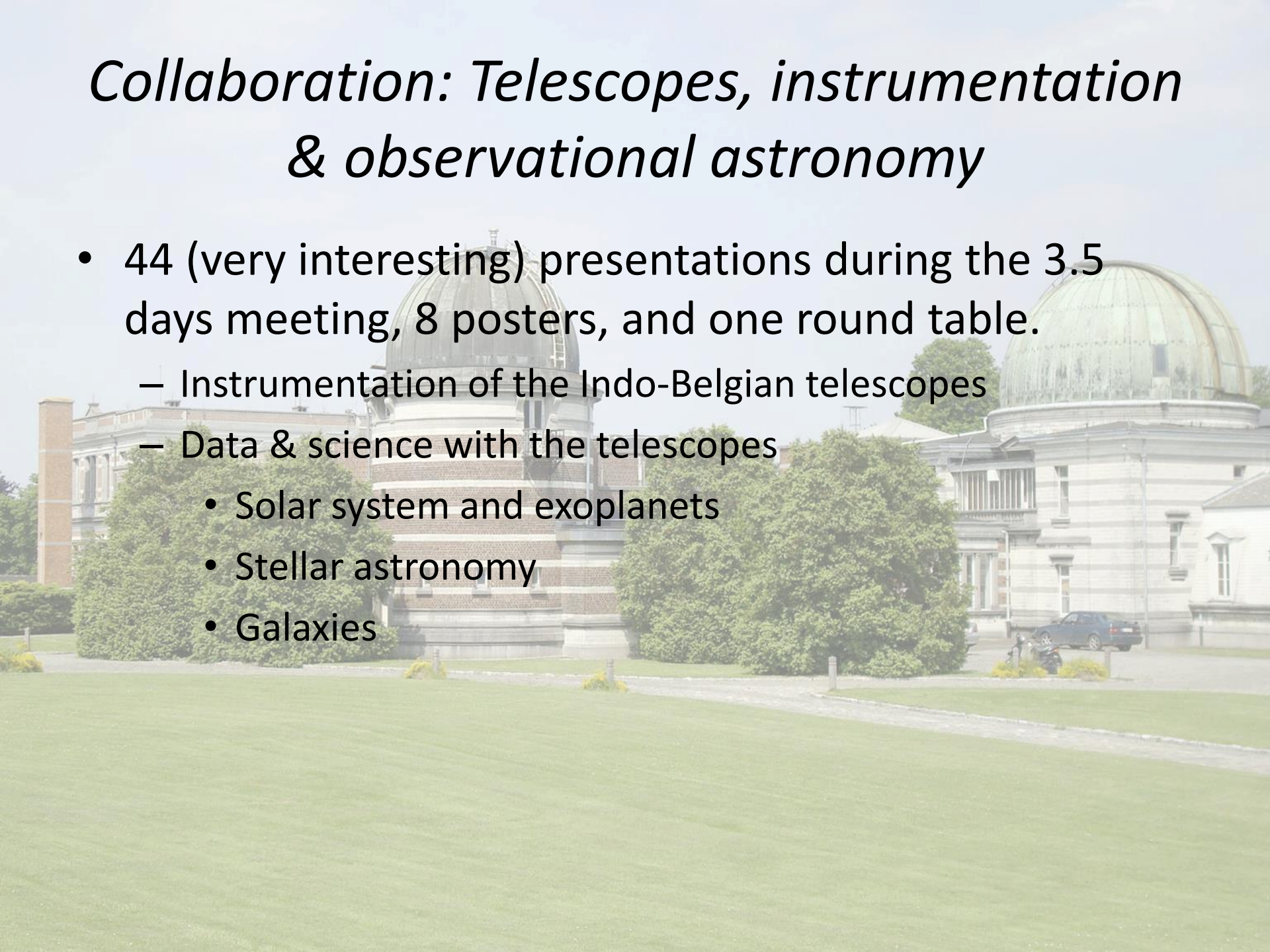
Collaboration

- ✓ Complementary expertise
or
- ✓ To tackle a big problem for which we individually do not
have the resources
or
- ✓ For other reasons



Collaboration: Telescopes, instrumentation & observational astronomy

- 44 (very interesting) presentations during the 3.5 days meeting, 8 posters, and one round table.
 - Instrumentation of the Indo-Belgian telescopes
 - Data & science with the telescopes
 - Solar system and exoplanets
 - Stellar astronomy
 - Galaxies





Telescope

DOT @ ARIES

ILMT @ ARIES

1m @ ARIES

1.3m @ ARIES

2m @ HCT

1.2 @ PRL

GMRT @ NCRA

AstroSat @ orbit

TRAPPIST

1.2 @ La Palma

6.0 @ SAO

All @ ESO



telescope

T @ ARIES

FLMIT @ ARIES

1m @ ARIES

1.3m @ ARIES

2m @ HCT

1.2 @ PRL

GMRT @ NCRA

AstroSat @ orbit

TRAPPIST

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Telescope

DOT @ ARIES

ILMT @ ARIES

1m @ ARIES

1.3m @ ARIES

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GMRT @ NCRA

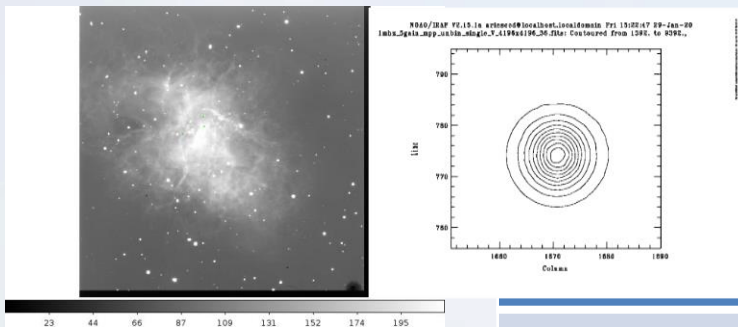
AstroSat @ orbit

TRAPPIST

1.2 @ La Palma

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All @ ESO



DOT @ ARIES

ILMT @ ARIES

1m @ ARIES

1.3m @ ARIES

2m @ HCT

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GMRT @ NCRA

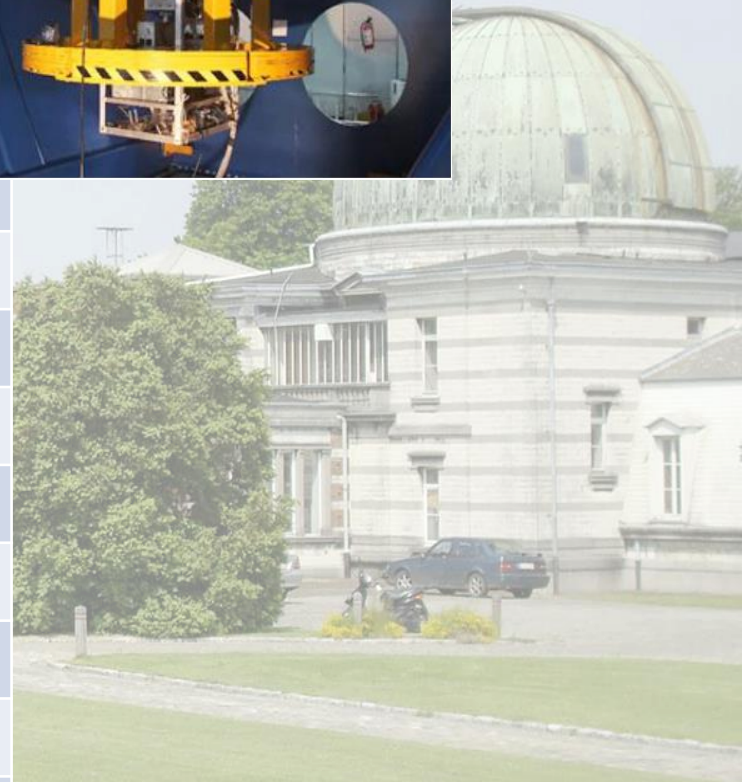
AstroSat @ orbit

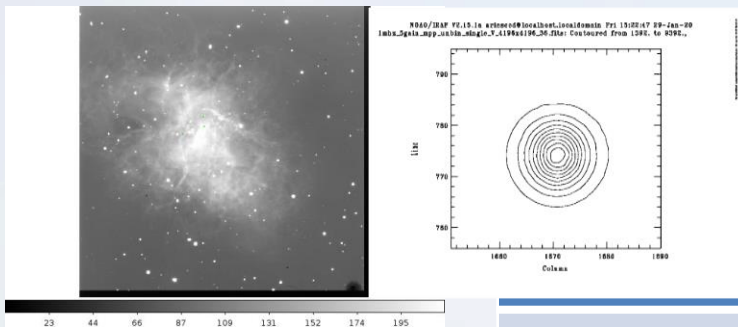
TRAPPIST

1.2 @ La Palma

6.0 @ SAO

All @ ESO





DOT @ ARIES

ILMT @ ARIES

1m @ ARIES

1.3m @ ARIES

2m @ HCT

1.2 @ PRL

GMRT @ NCRA

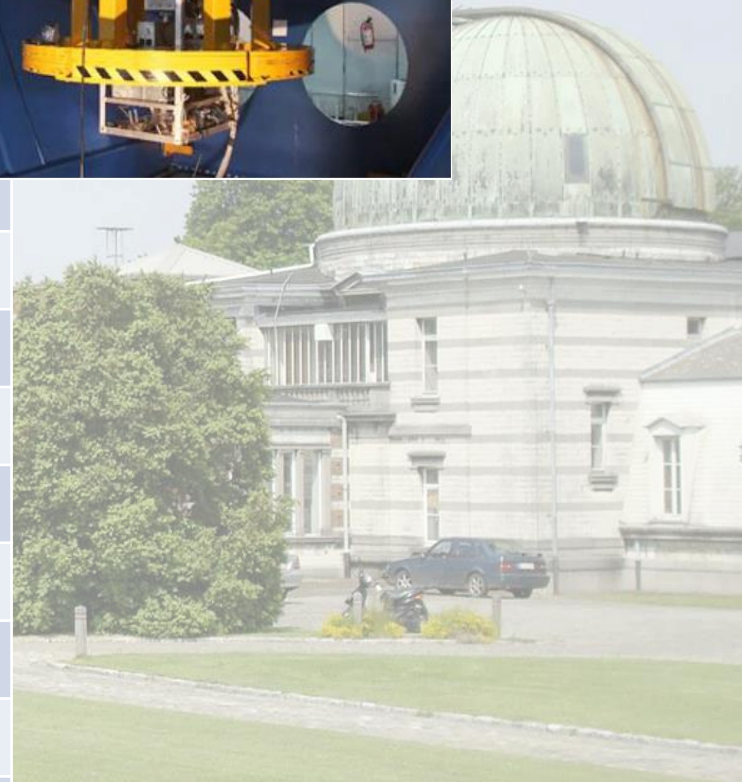
AstroSat @ orbit

TRAPPIST

1.2 @ La Palma

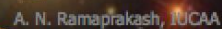
6.0 @ SAO

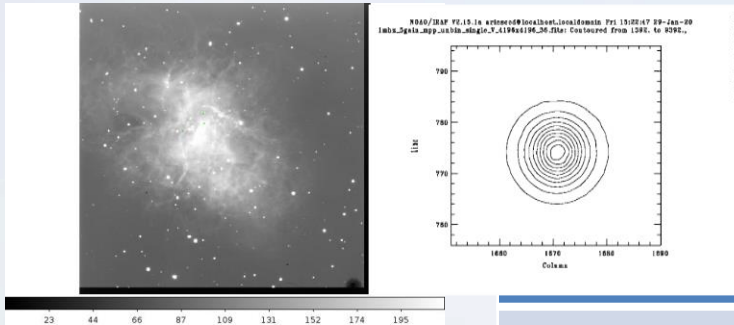
All @ ESO





All @ ES





TIRCAM2

TANSPEC (TIFR ARIES

DOT @ ARIES

UMT @ ARIES

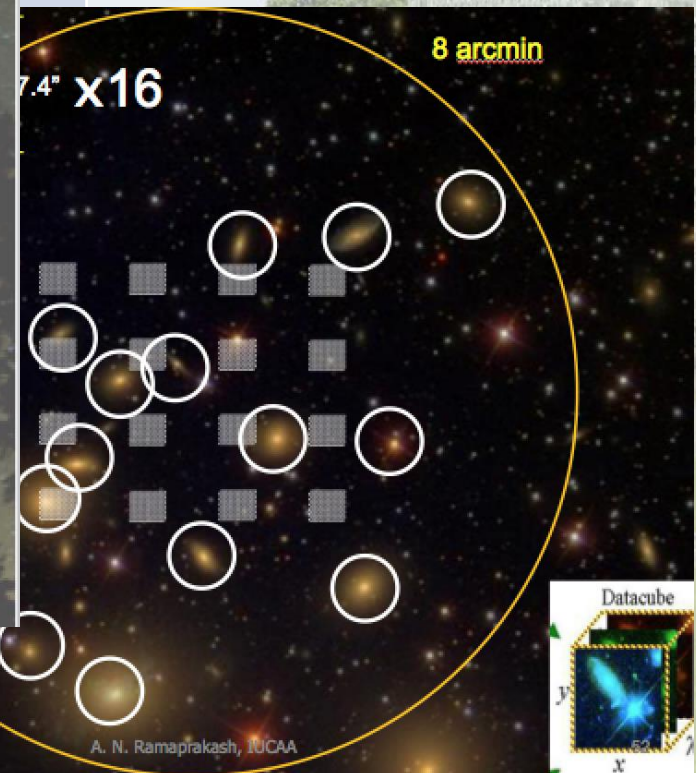


A sharp future for the 3.6m DOT? the power of adaptive optics for medium size telescopes

Gilles Orban de Xivry
STAR/PSILab

09/10/2018 – 2nd BINA workshop

All @ ES



09/10/2018

A. N. Ramaprkash, IUCAA



Telescope

DOT @ ARIES

ILMT @ ARIES

1m @ ARIES

1.3m @ ARIES

2m @ HCT

1.2 @ PRL

GMRT @ NCRA

AstroSat @ orbit

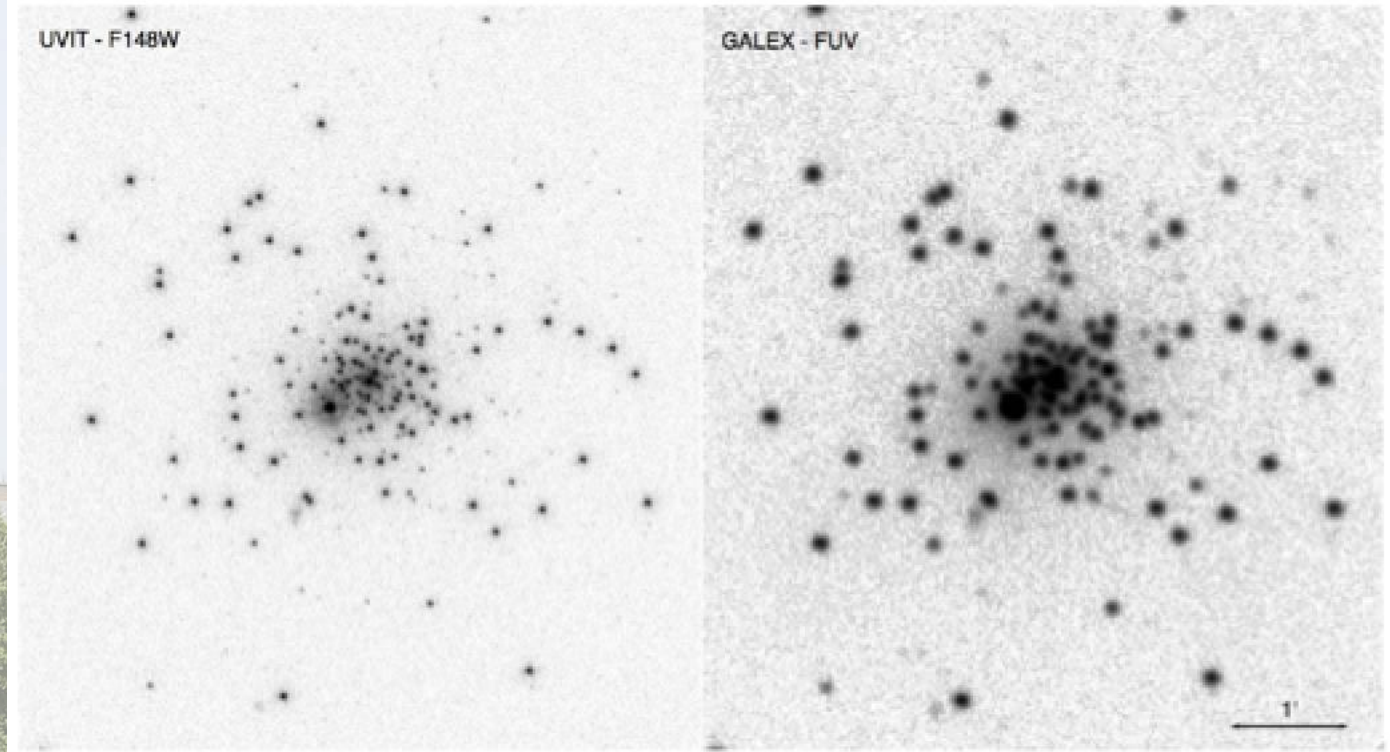
TRAPPIST

1.2 @ La Palma

6.0 @ SAO

All @ ESO

NGC 1851 - FUV: UVIT ~~vs~~ GALEX



UVIT @ NGC 1851

AstroSat @ orbit

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Telescope

DOT @ ARIES

ILMT @ ARIES

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2m @ HCT

1.2 @ PRL

GMRT @ NCRA

AstroSat @ orbit

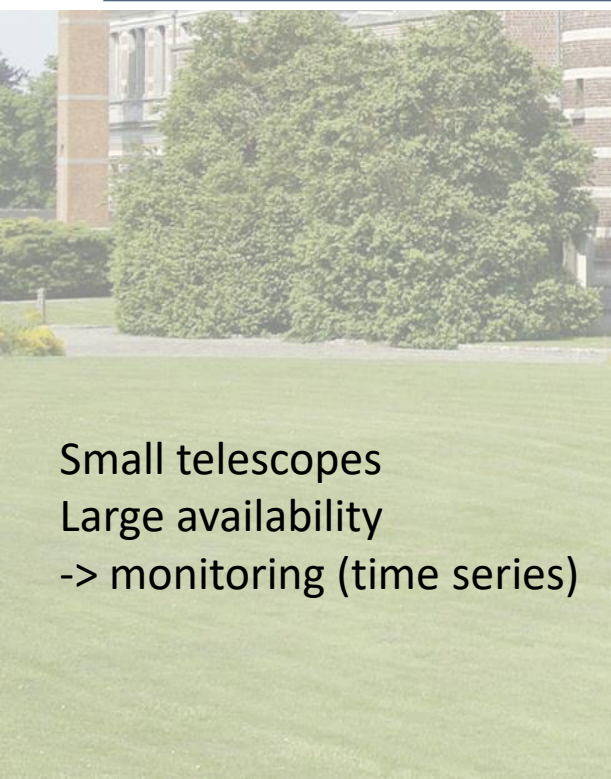
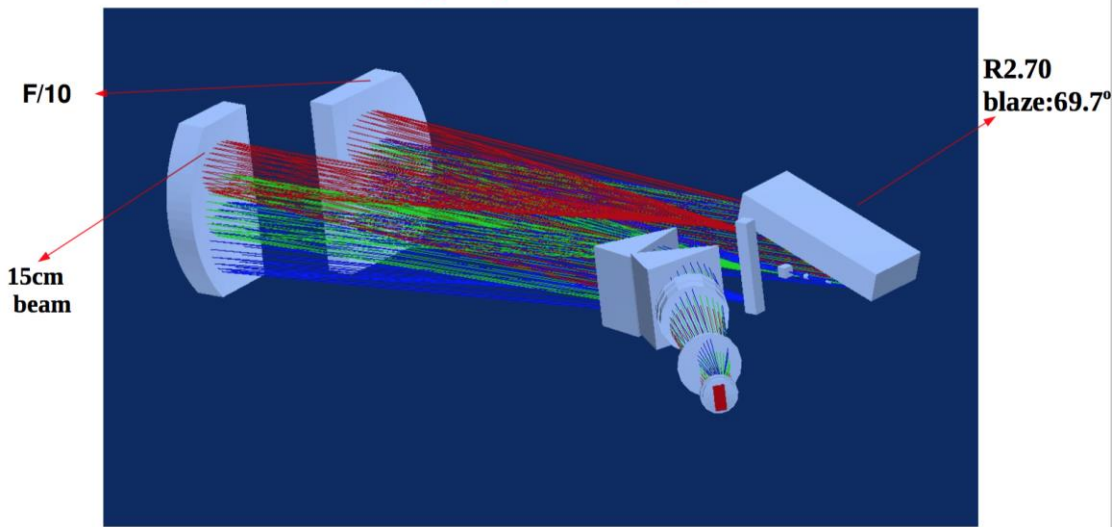
TRAPPIST

1.2 @ La Palma

6.0 @ SAO

All @ ESO

Hermes: white pupil Design



2m @ HCT

1.2 @ PRL

GMRT @ NCRA

AstroSat @ orbit


TRAPPIST

1.2 @ La Palma


6.0 @ SAO

All @ ESO


Small telescopes
Large availability
-> monitoring (time series)




TRAPPIST : TRANSiting Planets and Planetesimals Small Telescope




Emmanuël Jehin
STAR (Université de Liège, FNRS)





A robotic telescope to study planetary systems

Université de Liège 



Telescope

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AstroSat @ orbit

TRAPPIST

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All @ ESO

- Computational Astrophysics?
- Theoretical Astrophysics?
- Archives?
- Education?

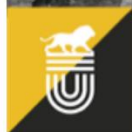


4th Indo-French Astronomy School

Spectroscopy 2D 3D

IFAS 5: Pune 2019 Aug. 16-24th

9 – 16 July 2018, Lyon



LIO

Institut des Origines de Lyon



Lyon 1



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MAIN MENU

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[Registration](#)

[Planning](#)

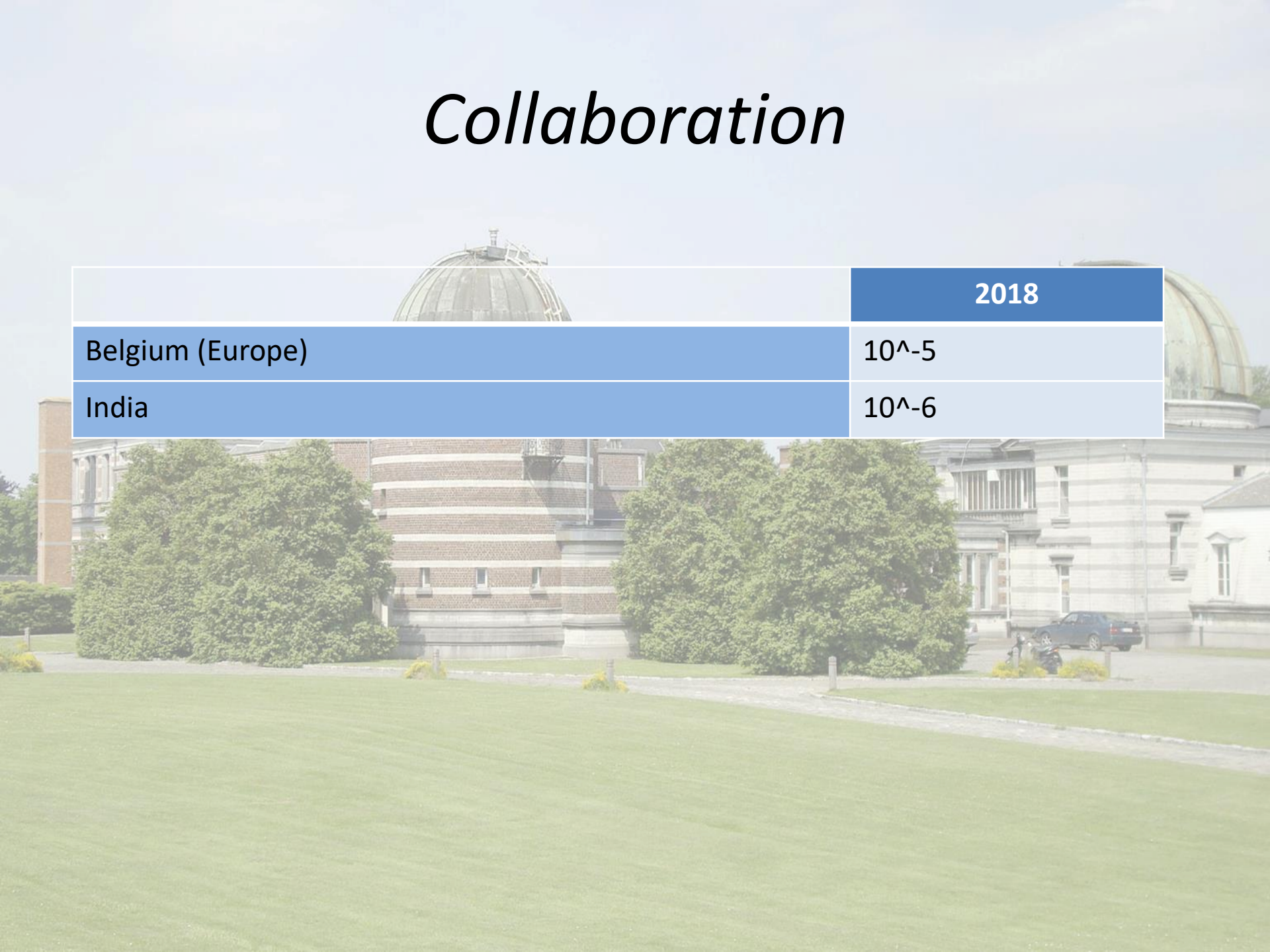
SCIENTIFIC RATIONALE

The IFAS4 school will bring together students from different horizons, expose them to high-level specialized lectures, and propose them to carry-on a seven-days research project. The topic of the present school is *spectroscopy, from the observational and data-reduction techniques, through the source detection and extraction in integral-field spectroscopy using inverse methods data fusion approaches, to data analysis*. The school is open to students at Master and Doctoral level, without geographic restrictions.

The Centre de Recherche Astrophysique de Lyon (CRAL) has been a pioneer of 3D, or Integral field spectroscopy, and recently

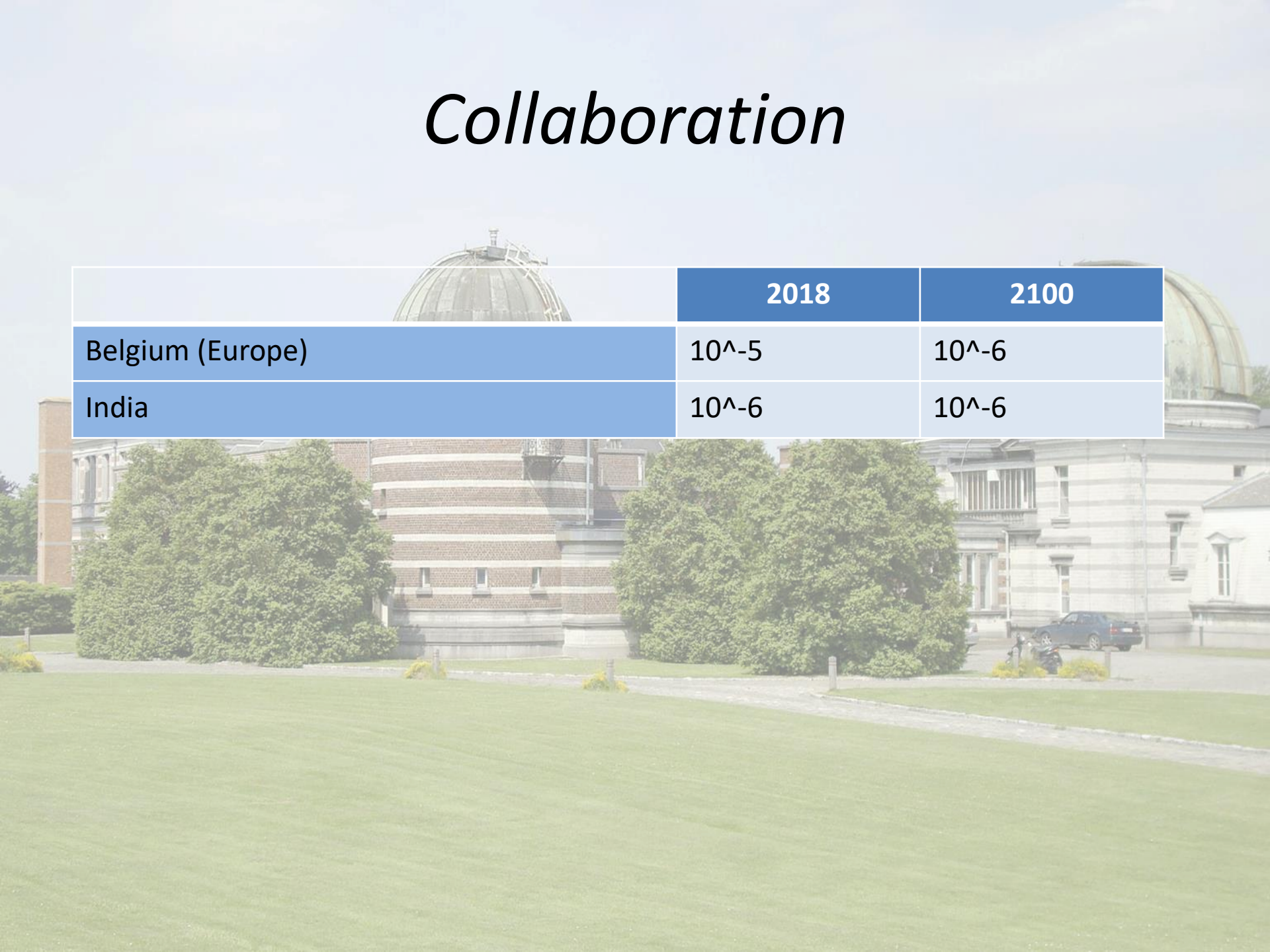


Collaboration



	2018
Belgium (Europe)	10^{-5}
India	10^{-6}

Collaboration



	2018	2100
Belgium (Europe)	10^{-5}	10^{-6}
India	10^{-6}	10^{-6}

Collaboration

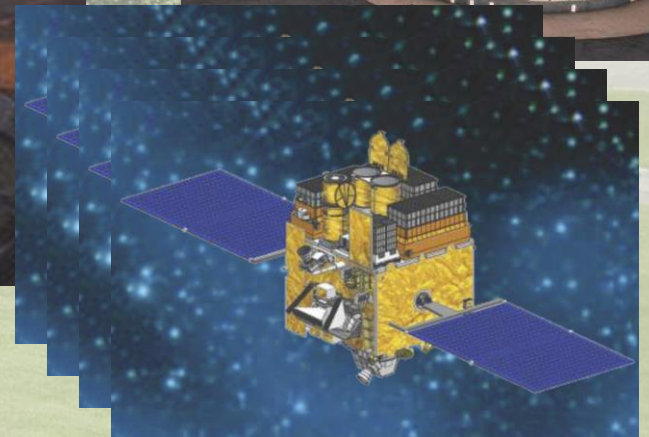
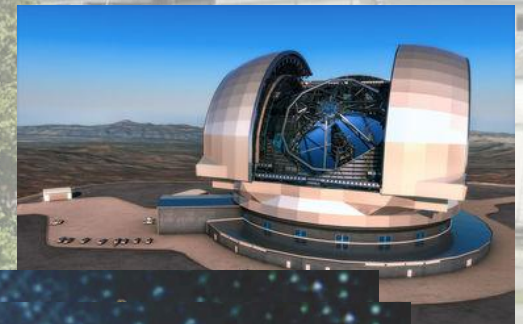
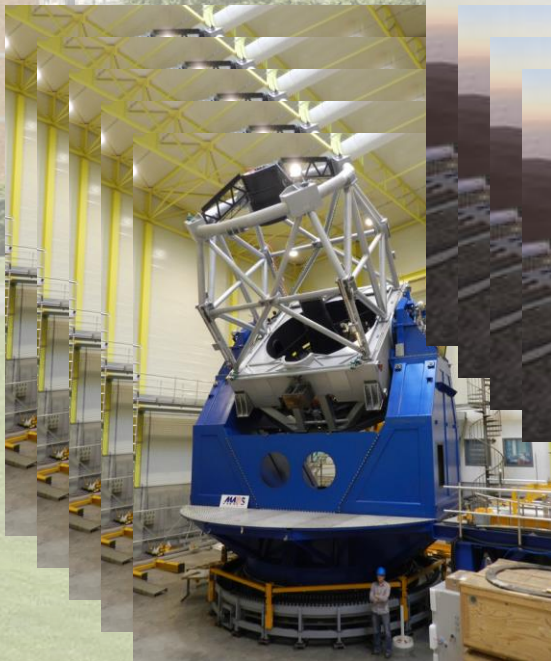
	2018	2100
Belgium (Europe)	10^{-5}	A dozen of astr.
India	10^{-6}	~1000 astr.

Collaboration

	2018	2100
Belgium (Europe)	10^{-5}	10^{-5}
India	10^{-6}	10^{-5}

Collaboration

	2018	2100
Belgium (Europe)	10^{-5}	10^{-5}
India	10^{-6}	10^{-5}



Collaboration

- ✓ Complementary expertise
or
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or
- ✓ For other reasons
 - ✓ Because we want to have a *positive* contribution to the mankind

Collaboration

- ✓ Complementary expertise
or
- ✓ To tackle a big problem for which we individually do not have the resources
or
- ✓ For other reasons
 - ✓ Because we want to have a *positive* contribution to the mankind

How do we contribute to the society?

BINA as an expanding international collaboration

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Martin Brumby
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Jean Van der Auwera

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Lyon
2019

EUROPEAN WEEK OF ASTRONOMY & SPACE SCIENCE

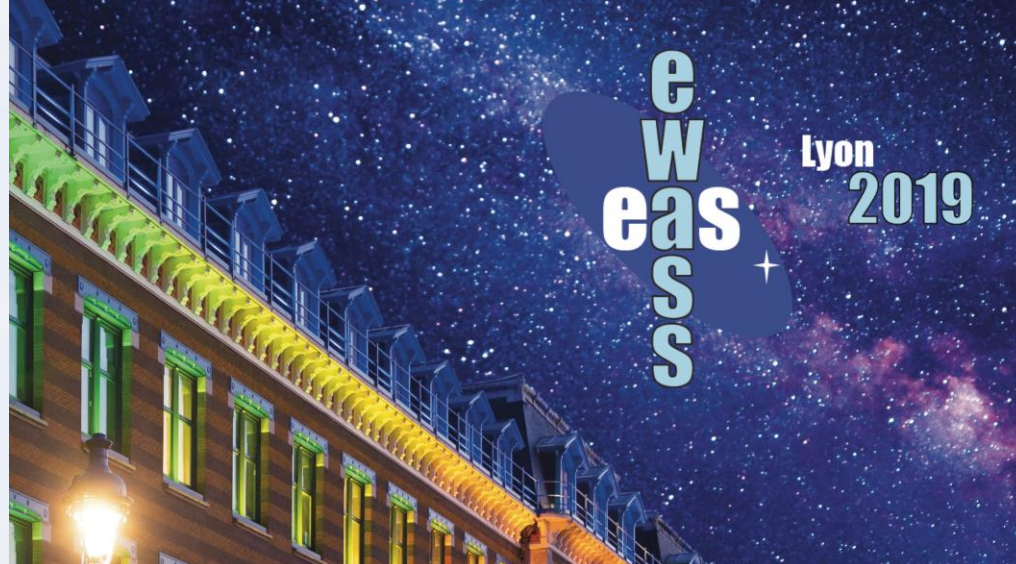
The annual meeting of the European Astronomical Society

24 - 28 JUNE 2019


Lyon, France | Manufactures des Tabacs

eas.unige.ch/EWASS2019/

ewass2019@kuoni.com



The Astronomical Society of India is 'invited society'
An opportunity to emphasize the Euro-India collaborations

A nighttime photograph of a historic building with a mansard roof and dormer windows, illuminated from within. The sky above is a deep blue with a dense field of stars and a faint, colorful nebula. Overlaid on the right side of the image is the logo for 'eWASS Lyon 2019'. The logo consists of the letters 'eWASS' in a stylized, stacked font, with 'Lyon 2019' to its right.

EUROPEAN WEEK OF ASTRONOMY & SPACE SCIENCE

The annual meeting of the European Astronomical Society

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BINA2: A tidally stretched flocculent spiral galaxy with a big orange AGN, a trifidus torus and a bended jet