

Belgian National Committee for Astronomy
<http://www.bnca.be>

Report on astronomical research in Belgium
Deadline: September 30

To be published in *Physicalia Magazine*

**Your input is expected,
for activities not covered
in the coming list**

Belgian National Committee for Astronomy
<http://www.bnca.be>

Report on astronomical research in Belgium
will be organized around large projects and networks
(no prejudice for theory!)

An amazingly large number of such projects in
Belgium...

A new one is coming as a 'gift' from Belspo:
7% of guaranteed time on the ARIES 3.6m telescope
starting end 2012

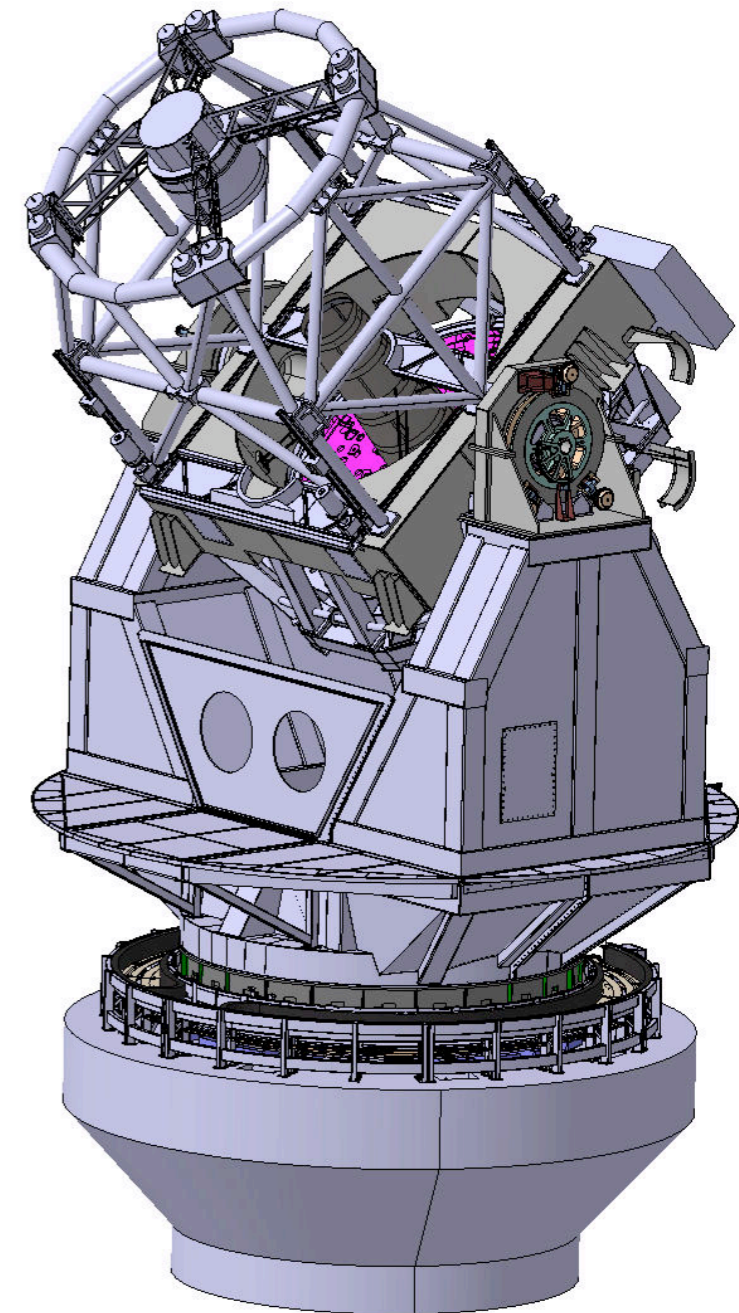
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- **The ARIES 3.6m telescope** <http://www.aries.res.in/projects/>

Aryabhata Research Institute of Observational Sciences (previously Uttar Pradesh State Observ.)

- **located at Devasthal:**

latitude = $+29^{\circ}23'$, longitude = $79^{\circ}41'$ E, altitude = 2540 m

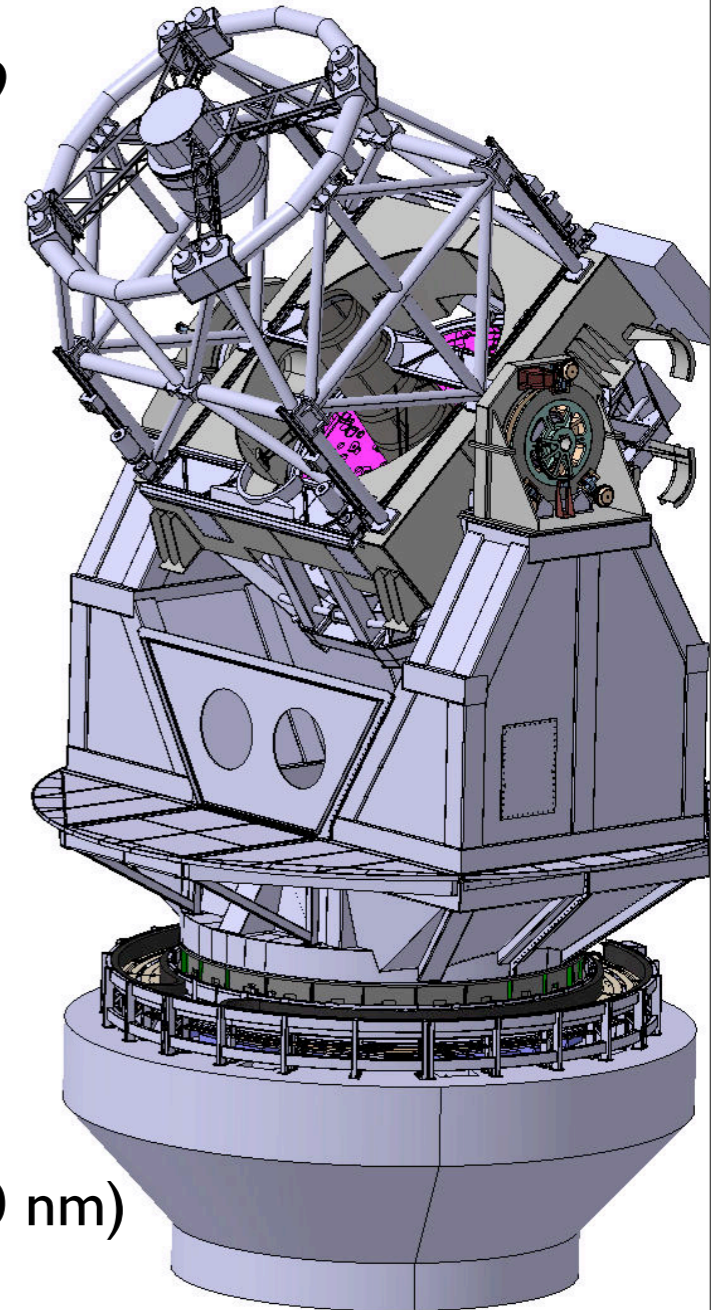




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- **The ARIES 3.6m telescope** <http://www.aries.res.in/projects/>
Aryabhata Research Institute of Observational Sciences (previously Uttar Pradesh State Observ.)
- **located at Devasthal:** latitude = $+29^{\circ}23'$, longitude = 79
- **built by AMOS** with 10% contribution from Belpo (2M€)
- **7% of guaranteed time**
about 20 nights/yr given the July-August monsoon loss
- **a Belgian TAC will be set up,**
under the authority of Belpo/BNCA
- **operational end 2012**
- **instruments :**
Near-IR camera (1 to 1.5 μm , 4'x4')
Low resolution spectrograph ($R \sim 1000$) and camera (10'x10', 350 to 1000 nm)
High-resolution spectrograph (to be built)



Instruments

1. Near-IR camera (1 to 1.5 μm , 4'x4')
2. Low resolution spectrograph ($R \sim 1000$) and camera (10'x10', 350 to 1000 nm)
3. High-resolution spectrograph

Currently under discussion:

To be built with the help of Belgium? How to manage the project ?

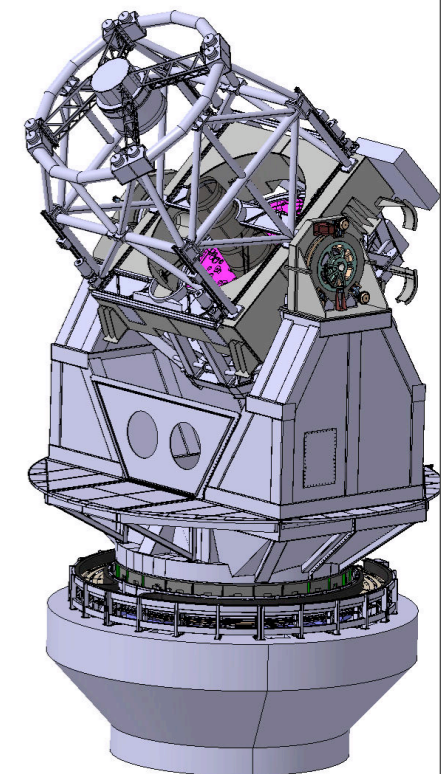
Use the expertise gained with HERMES / Mercator (1.2 m) ?

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DOI: [10.1051/0004-6361/201015435](https://doi.org/10.1051/0004-6361/201015435)

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**Astronomy
&
Astrophysics**



HERMES: a high-resolution fibre-fed spectrograph for the Mercator telescope★

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P. Degroote¹, R. Dubosson⁶, L. Dumortier², Y. Frémat², U. Laux⁴, B. Michaud⁶, J. Morren⁷, J. Perez Padilla¹,
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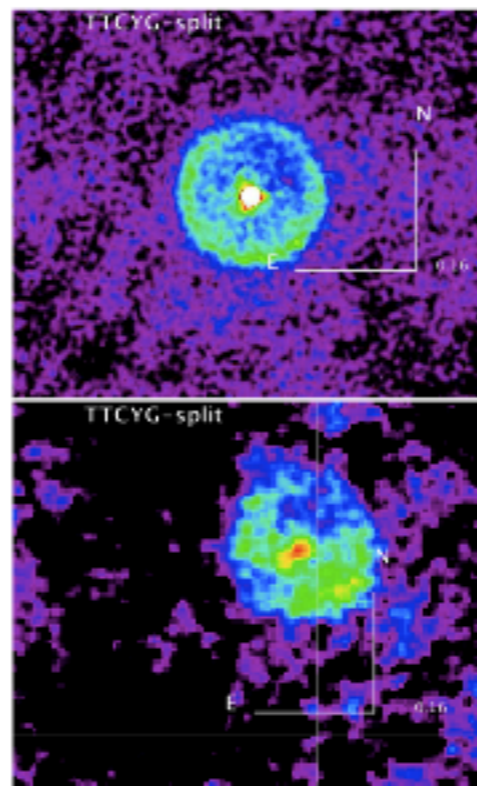
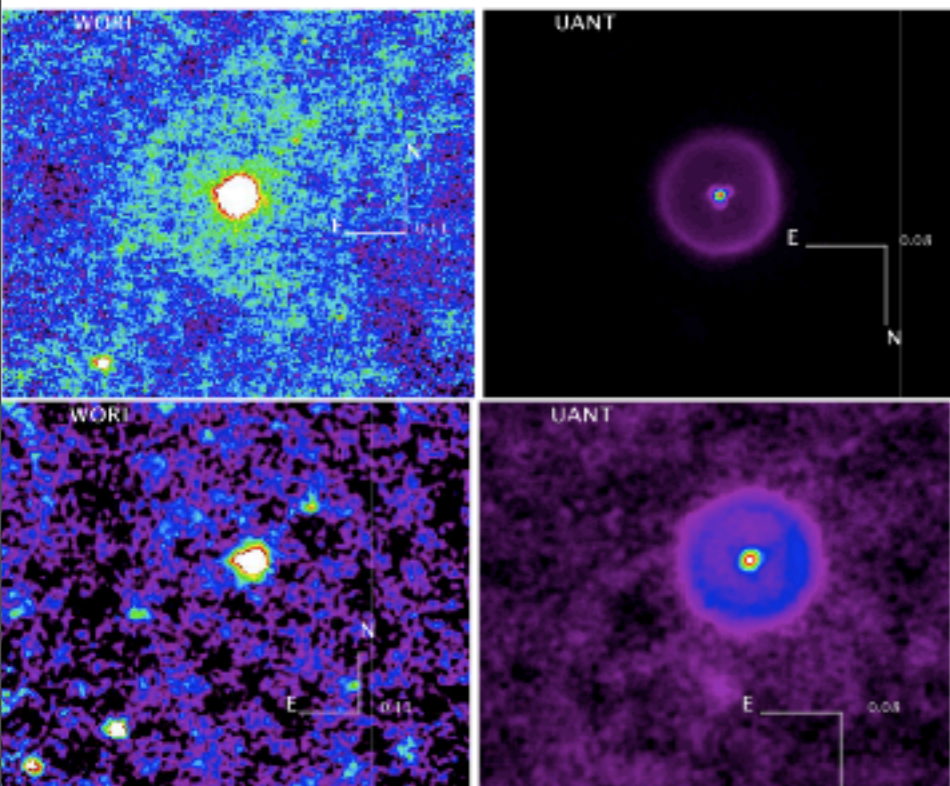
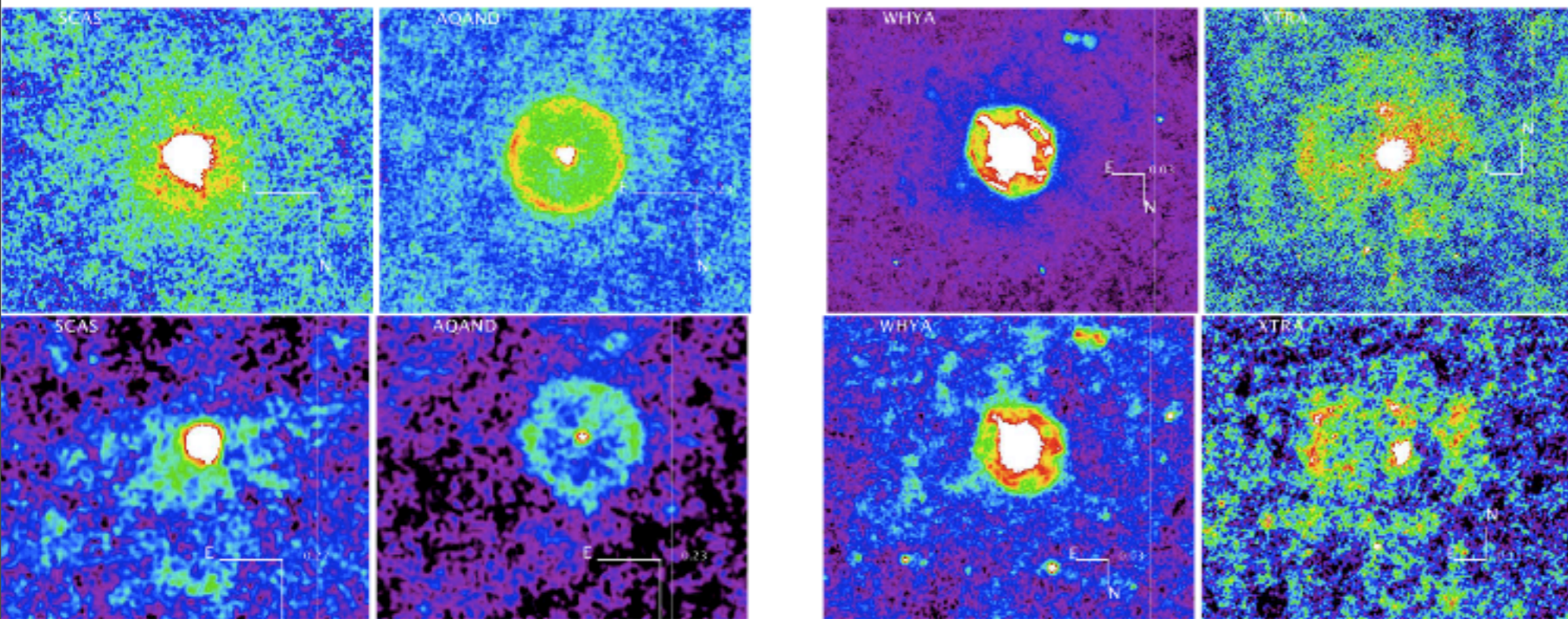
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A list of on-going (large) projects to appear in the *Physicalia* review paper...

- **(Large) infrastructure on the ground**
 - ★ ARIES 3.6m telescope
 - ★ Liquid Mirror Telescope
 - ★ Mercator 1.2m telescope + HERMES + Maia/Merope
 - ★ TRAPPIST
 - ★ VLT Belgian Guaranteed Time (2 x 8n / yr)
- **Satellites & associated research networks**
 - ★ Gaia : GREAT (ESF) Meeting in Brussels June 22-23
 - ★ BepiColombo, ExoMars, Rosetta, Mars Express, Venus Express
 - ★ HERSCHEL: MESS consortium

MESS consortium: Wind-ISM interaction and detached shells in the far-infrared



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Archive > Volume 467 > Issue 7311 > Letters > Abstract

NATURE | LETTER ◀ previous abstract next abstract ▶

Warm water vapour in the sooty outflow from a luminous carbon star

L. Decin, M. Agúndez, M. J. Barlow, F. Daniel, J. Cernicharo, R. Lombaert, E. De Beck, P. Royer, B. Vandenbussche, R. Wesson, E. T. Polehampton, J. A. D. L. Blommaert, W. De Meester, K. Exter, H. Feuchtgruber, W. K. Gear, H. L. Gomez, M. A. T. Groenewegen, M. Guélin, P. C. Hargrave, R. Huygen, P. Imhof, R. J. Ivison, C. Jean, C. Kahane + *et al.*

[Affiliations](#) | [Contributions](#) | [Corresponding author](#)

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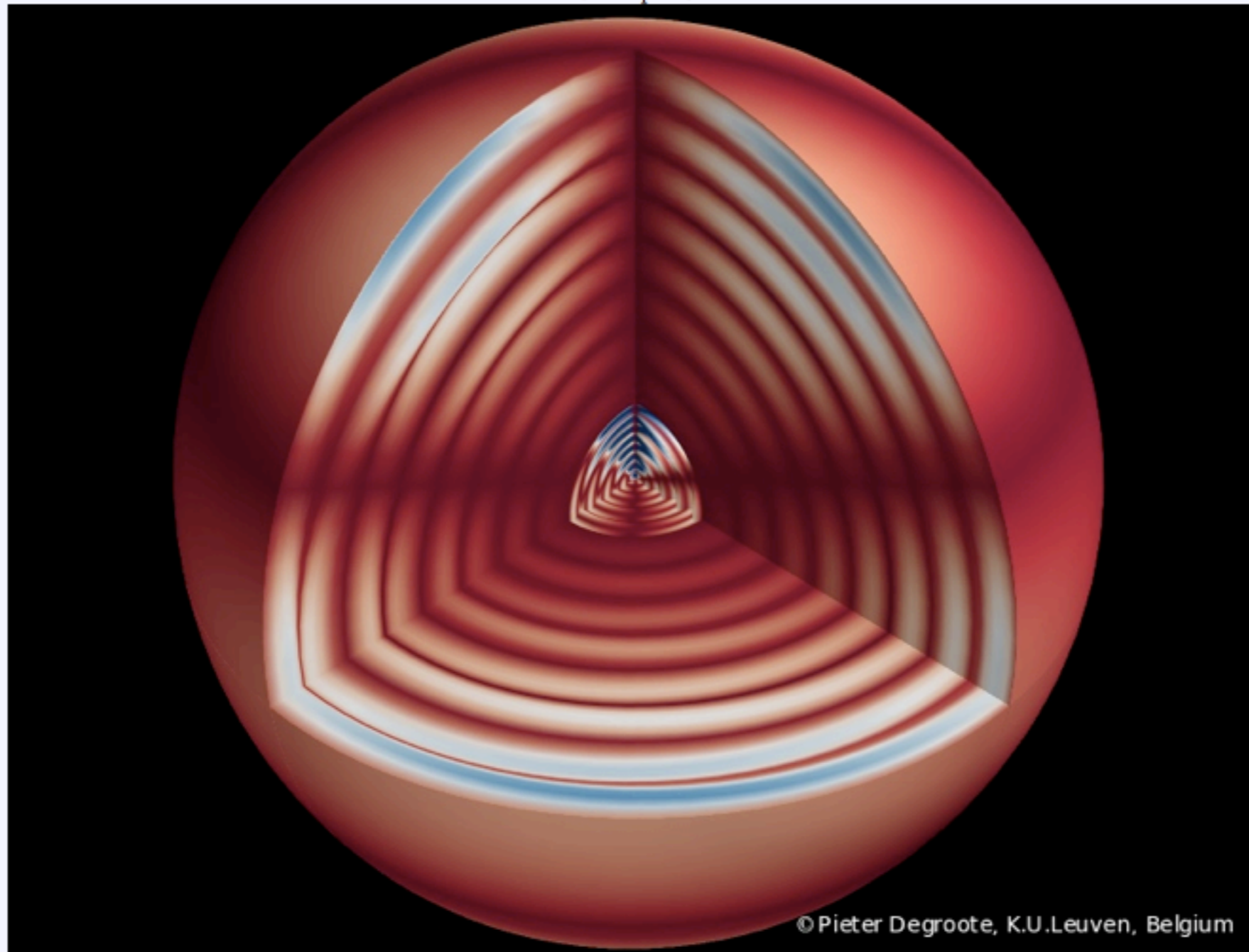
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 - ★ Kepler / COROT : Belgian Asteroseismology Network, PROSPERITY (ERC Advanced Grant)

Astronomy Picture of the Day

[Discover the cosmos!](#) Each day a different image or photograph of our fascinating universe is featured, along with a brief explanation written by a professional astronomer.

2011 April 8



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Echoes from the Depths of a Red Giant Star

Illustration Credit & Copyright: Pieter Degroote (Leuven University)

Credit: Paul Beck, Joris De Ridder, Conny Aerts ([Leuven University](#)), [et al.](#), [ERC](#), [PROSPERITY](#)

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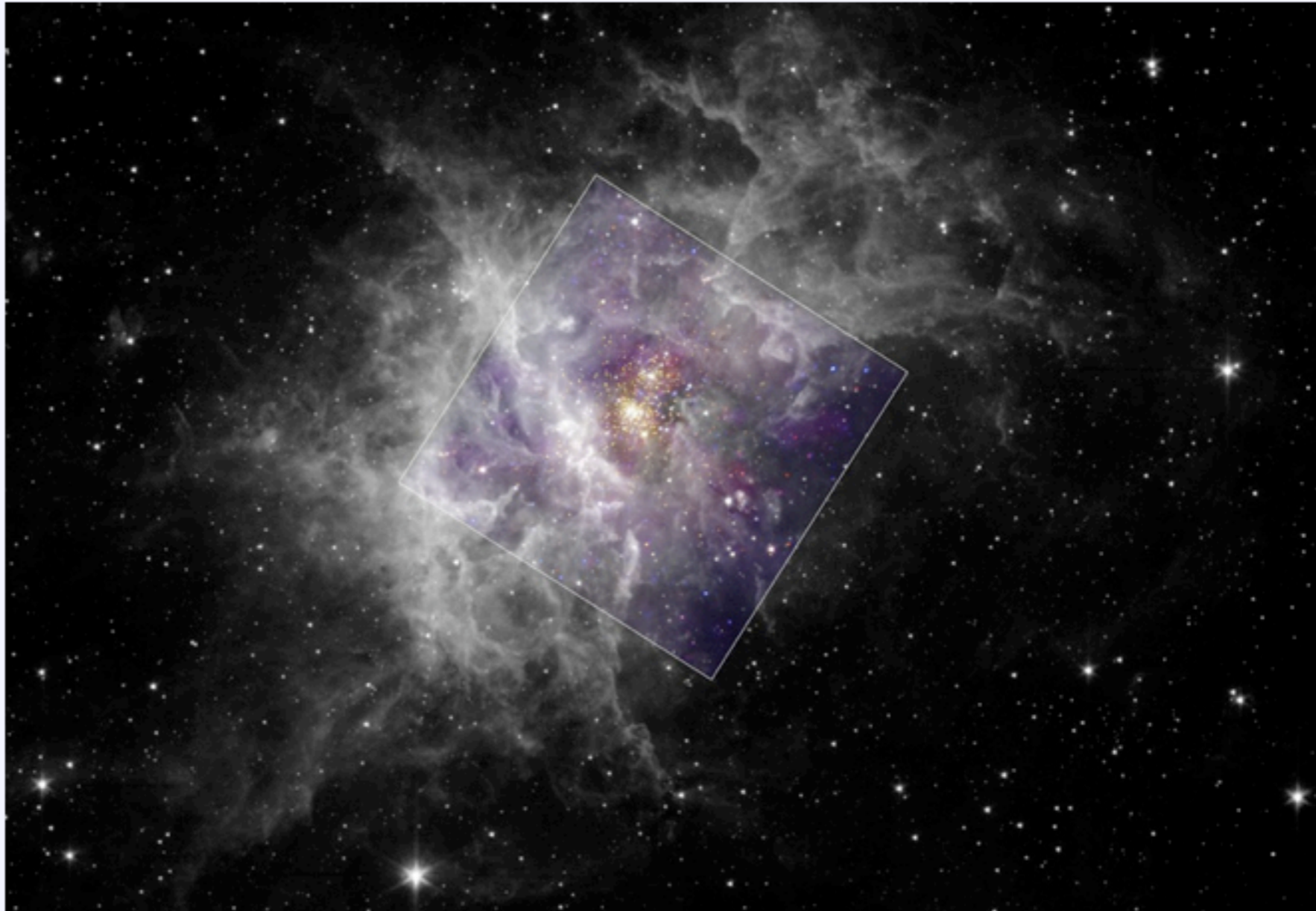
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 - ★ Chandra

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2010 June 26



Young Star Cluster Westerlund 2

Credit: X-ray; Y.Nazé, G.Rauw, J.Manfroid ([Université de Liège](#)), [CXC](#), [NASA](#)
Infrared; E.Churchwell ([University of Wisconsin](#)), [JPL](#), [Caltech](#), [NASA](#)

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 - ★ Chandra
 - ★ PICARD, Proba2
- **Research Networks**
 - ★ HERMES (KULeuven - ROB - ULB)
 - ★ Solar and Terrestrial Centre of Excellence (IRM/KMI - ROB - BIRA/IASB - CPA/ KULeuven)
 - ★ COSMOGRAIL (KULeuven - ULg) & MiNDSTEp (ULg)
 - ★ COMPSTAR (ESF - ULB)

- **Large VLT Programs**

- Internal dynamics of dwarf elliptical galaxies (UGent)
- Circumstellar environments of evolved stars (VISIR + AMBER + MIDI + Herschel; MESS)
- [H-ATLAS (Large open program with Herschel; UGent)]

- **Simulations**

- BINSTAR / STAREVOL (full 3D code)
- Hydro simulations (solar chromosphere, wind - ISM interaction, winds of hot stars...)
- Neutron-star interior physics with BRUSLIB [Brussels Nuclear Astrophysics Library]
- ...

- **Some project(s) not mentioned ?**

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