

Non-Thermal Phenomena in Clusters of Galaxies (MA4)

◆ Research at INAF: theory (plasma astrophysics: cosmic rays, acceleration mechanisms, etc.) and observations (in the radio, X-rays (soft+hard), γ -rays bands).

→ Theoretical research would benefit of a more *transversal* view within MA4, i.e.; plasma astrophysics from clusters of galaxies to supernova remnants and AGN/radio galaxies.

→ INAF should recognize the importance of plasma astrophysics (and theory in general) thus promoting the coordination of theorists through different channels (PRIN, PhD scholarships, staff permanent positions).

◆ Golden Age of radioastronomy $\leftarrow \rightarrow$ Pathway to SKA (Italy: full member, through INAF)

✓ LOFAR, MWA (now) → ASKAP, MeerKAT (1 year timescale) → SKA1-LOW, SKA1-MID

The Italian community should be officially involved in SKA pathfinders/precursors to gain the scientific and more technical (data analysis and calibration...) expertises necessary to use SKA .

✓ Individual INAF researchers take part in Science Working Groups (LOFAR, SKA...).

INAF=> Italian *SKA Science Coordination Board* to coordinate the Italian research in view of the definition of the SKA Key Science Projects. What actions so far? How this board interact with the scientific community?

◆ What about the research on non-thermal phenomena at high energy ?

NuSTAR...

CTA, Athena... Is the Italian community ready/interested/coordinated?

Non-Thermal Phenomena in Clusters of Galaxies (MA4)

◆ Research at INAF: theory (plasma astrophysics: cosmic rays, acceleration mechanisms, etc.) and observations (in the radio, X-rays (soft+hard), γ -rays bands).

→ Theoretical research would benefit of a more *transversal* view within MA4, i.e.; plasma astrophysics from clusters of galaxies to supernova remnants and AGN/radio galaxies.

→ INAF should recognize the importance of plasma astrophysics (and theory in general) thus promoting the coordination of theorists through different channels (PRIN, PhD scholarships, staff permanent positions).

◆ Golden Age of radioastronomy $\leftarrow \rightarrow$ *Pathway* to SKA (Italy: full member, through INAF)

✓ LOFAR, MWA (now) → ASKAP, MeerKAT (1 year timescale) → SKA1-LOW, SKA1-MID

The Italian community should be officially involved in SKA pathfinders/precursors to gain the scientific and more technical (data analysis and calibration...) expertises necessary to use SKA .

✓ Individual INAF researchers take part in Science Working Groups (LOFAR, SKA...).

INAF=> Italian *SKA Science Coordination Board* to coordinate the Italian research in view of the definition of the SKA Key Science Projects. What actions so far? How this board interact with the scientific community?

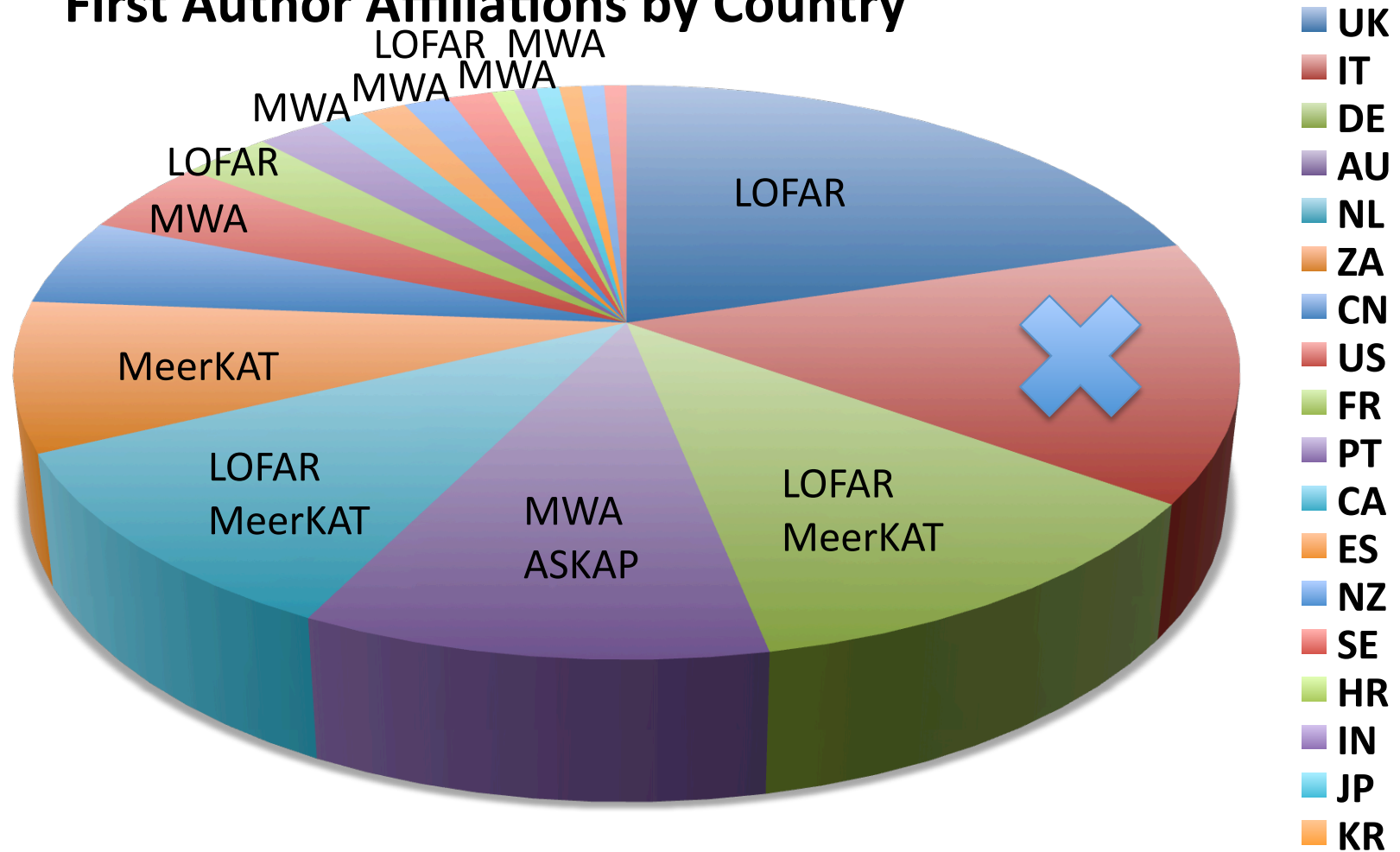
◆ What about the research on non-thermal phenomena at high energy ?

NuSTAR...

CTA, Athena... Is the Italian community ready/interested/coordinated?

SKA science case:
135 chapters

First Author Affiliations by Country



SKA 2016: Science for the SKA generation

7-11 November 2016

Asia/Calcutta timezone

website: <https://indico.skatelescope.org/event/391/>

Overview

Conference Programme

Early Registration

Registration Form

List of Registrants

Important Dates

Invitation Letter and Visas

Venue and
Accommodation

Social Activities

Maps and Travel
Information

Organising Committees

Abstract submission

Support

✉ ska-nov16@skateles-

The next few years promise to provide a wave of new discoveries from the current suite of global radio telescopes. The scientists who are using these facilities to break new ground will soon become the first generation of users of the Square Kilometre Array. This conference aims to bring together early career and senior researchers from the radio astronomy community in order to present their current work, develop new collaborations, and preview the science that SKA1 will do in 2023 and beyond. The venue will be the Hotel Cidade in beautiful Goa, India. The meeting will run for five days beginning on November 7, 2016, including two days of breakout sessions at the end of the week for those wishing to discuss future key science project collaborations.

The main scientific and technical themes of the meeting will be:

- Epoch of Reionization/Cosmic Dawn
- Extragalactic continuum surveys
- Extragalactic spectral line
- Cosmology
- the Cradle of Life
- HI galaxy science
- Cosmic Magnetism
- Our Galaxy
- Pulsars
- Solar, Heliospheric and Ionospheric physics
- Transients
- High Energy Cosmic Particles
- VLBI

Are there
interesting themes
for MA4 (?)

Important dates:

Early registration deadline: June 10, 2016

Abstract submission deadline: late July

Announcement of speaker selection: August

Full registration deadline: September

Non-Thermal Phenomena in Clusters of Galaxies (MA4)

◆ Research at INAF: theory (plasma astrophysics: cosmic rays, acceleration mechanisms, etc.) and observations (in the radio, X-rays (soft+hard), γ -rays bands).

→ Theoretical research would benefit of a more *transversal* view within MA4, i.e.; plasma astrophysics from clusters of galaxies to supernova remnants and AGN/radio galaxies.

→ INAF should recognize the importance of plasma astrophysics (and theory in general) thus promoting the coordination of theorists through different channels (PRIN, PhD scholarships, staff permanent positions).

◆ Golden Age of radioastronomy $\leftarrow \rightarrow$ *Pathway* to SKA (Italy: full member, through INAF)

✓ LOFAR, MWA (now) → ASKAP, MeerKAT (1 year timescale) → SKA1-LOW, SKA1-MID

The Italian community should be officially involved in SKA pathfinders/precursors to gain the scientific and more technical (data analysis and calibration...) expertises necessary to use SKA .

✓ Individual INAF researchers take part in Science Working Groups (LOFAR, SKA...).

INAF=> Italian *SKA Science Coordination Board* to coordinate the Italian research in view of the definition of the SKA Key Science Projects. What actions so far? How this board interact with the scientific community?

◆ What about the research on non-thermal phenomena at high energy ?

NuSTAR...

CTA, Athena... Is the Italian community ready/interested/coordinated?