

Rironkon and its stance on the Roadmap



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on behalf of Rironkon

My talk is not the representative of Rironkon

NOTE: Any formal statements of opinion by Rironkon must be approved by the membership at a general meeting (理論懇総会).

This talk will summarize what Rironkon has been doing:

1. Research areas covered by Rironkon and the annual symposiums
2. Our stance on the Roadmap
3. the suggestions made to the community of astronomy and astrophysics

Rironkon - stats

Number of members: 544 (as of Sept 2023)

Who can join?: we accept researchers who have published one or more papers in Astronomy and Astrophysics.

理論天文学宇宙物理学懇談会ホームページ

本会の目的：天文学、宇宙物理学の理論的研究の発展を目的とし、共同利用研究所等における理論研究の推進や将来計画の検討に必要な諸活動を行う

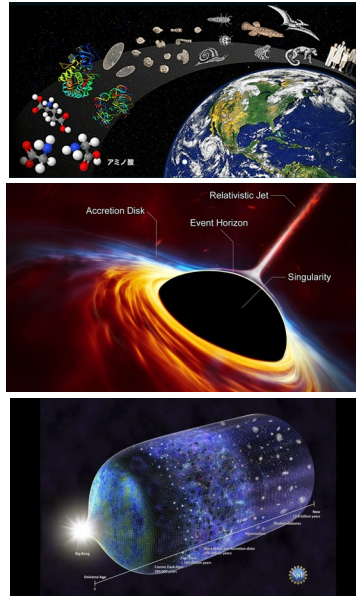
Here are some of the annual activities:

- holding the Rironkon symposiums (36th this year, regular participants ~200)
- general meeting in the symposiums (理論懇総会)
- report meetings at ASJ and JPS
- election for recommendations to other committees (学会代議員, 共同利用研運営委員, etc.)

Research areas covered by Rironkon members

Key words are picked up from 「日本における天文学・宇宙物理学の理論的研究」 (free!)
a booklet edited by Rironkon members to introduce Japanese theoretical A&A groups, see
<http://rironkon.jp/nihon/index.html>

- Astrobiology
- Planet formation/atmosphere
- Origin of CR
- Galaxy formation/evolution
- High Energy Astrophysics
- Gravitational waves
- Gravity/particle theories
- Gravitational lensing



- ISM physics
- Dark Matter
- Supernova
- BH formation
- Plasma Physics
- Star formation/evolution
- Dark Energy
- Cosmology

History of the Rironkon symposiums (japanese characters only, sorry...)

- 36 「高赤方偏移のフロンティア」 (弘前大学 12/25-27) ← Now accepting participants
- 35 「理論天文学・宇宙物理学の広がり：さらなる発展に向けて」 (コラッセ福島)
- 34 「挑戦的アイデアで広げる宇宙物理の可能性」 (オンライン)
- 33 「理論天文学・宇宙物理学のブレイクスルー」 (オンライン)
- 32 「天文学・宇宙物理学の変遷と新時代の幕開」 (国立天文台)
- 31 「宇宙物理の標準理論：未来へ向けての再考」 (基礎物理学研究所)
- 30 「星の物理の新地平」 (東京大学)
- 29 「重力が織りなす宇宙の諸階層」 (東北大学)
- 28 「宇宙における天体形成から生命まで」 (大阪大学)

Symposium topics were often general but sometimes specific.

(We thank the continuous support from NAOJ)

Our stance on the Roadmap

As we saw, the research area covered by the Rironkon members is too wide.



- Therefore we could not push for one particular large- or medium-sized observation or experiment program.
 - though we supported cosmo-simulator at MasterPlan 2017
- However, this does not mean that we do not support any particular projects.
- **Rather, we are supporting all:** we encourage each member (personally) to actively join the discussion on (future) observation/experiment programs.

The suggestion made to the community of astronomy and astrophysics (1)

Although we do not promote any particular experiments/observations, we officially support one activity; computational astronomy and astrophysics

At the general meeting on 2021 December, we agreed the following

“The general consensus of Rironkon is to support the stable operation of the supercomputer of the National Astronomical Observatory of Japan's Simulation Project (CfCA).”

The suggestion made to the community of astronomy and astrophysics (2)

In the short term: Keep the stable operation

- Note: the original budget plan of the fiscal year of 2019 was not sufficient even paying the electric bills and the rental fee of ATERUI II, which makes it difficult to maintain the operation itself.
- Please consider the budget plan with a consideration of opinions/suggestions of astronomical communities.

In the Mid term: Keep updating the supercomputer every ~5-6 years

- Cray XT4 (2008 April-), Cray XC30 (2013 April-),
ATERUI II Cray XC50 (2018 June- 2024 Aug),
New super computer (2024 Dec- 2031)

Thank you