

Virgo Outreach report – May 28-29, 2024, STAC meeting

VIR-0471A-24. TDS link: <https://tds.virgo-gw.eu/ql/?c=20531>

Isabel Cordero-Carrión, Virgo outreach coordinator

→ **General mailing list:** outreach@ego-gw.it

TEAM WORK

→ **WG1** – Education and outreach to scientific communities:

Mailing list: outreach-wg1@ego-gw.it

Coordinator: Gideon Koekoek

Joint WG1+WG3 weekly meetings
on Mondays at 10:30 am

→ **WG3** – Public engagement:

Mailing list: outreach-wg3@ego-gw.it

Coordinator: Simone Mastrogiovanni

→ **WG2** – Institutional and media communication:

Mailing list: outreach-wg2@ego-gw.it

Coordinator: Vincenzo Napolano. Weekly meetings on Fridays at 9:00 am

→ **Transversal activities** (e.g., translations, wikipedia update, science summaries, beginners' guide).

→ LVK **visibility**: Long-standing project. VIR-0128A-24.

<https://rdcu.be/dwWKp>
<https://arxiv.org/abs/2402.03359>


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<https://doi.org/10.1140/epjh/s13129-023-00066-z>

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Regular Article

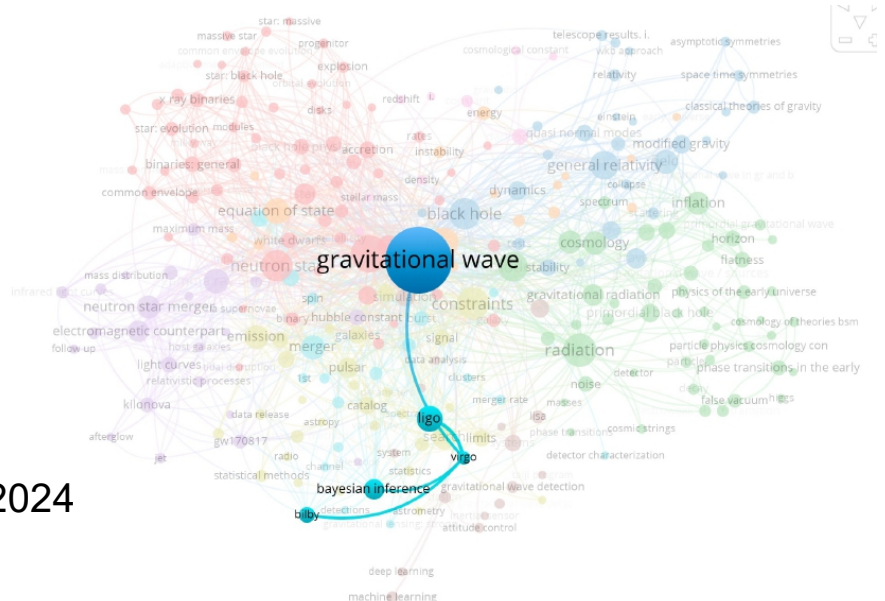
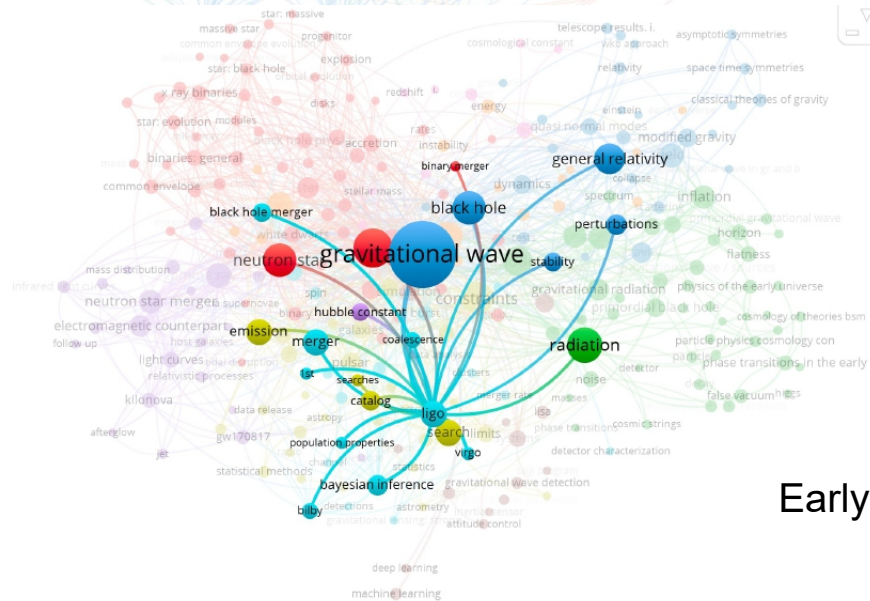
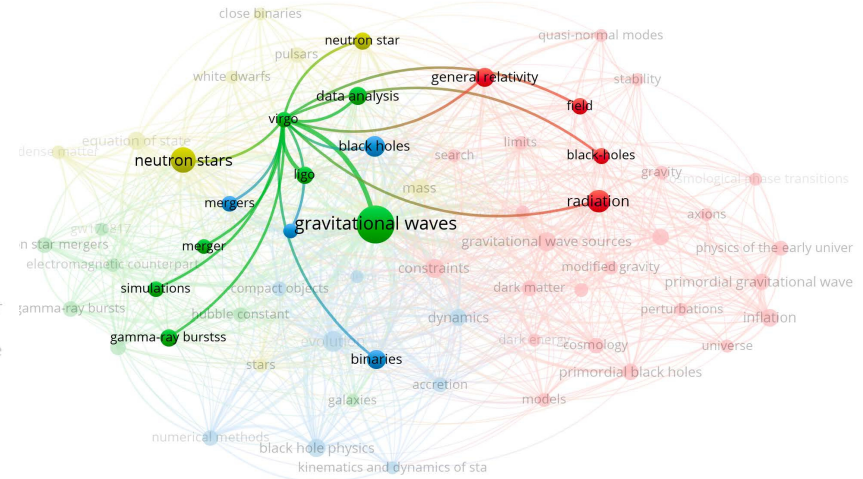
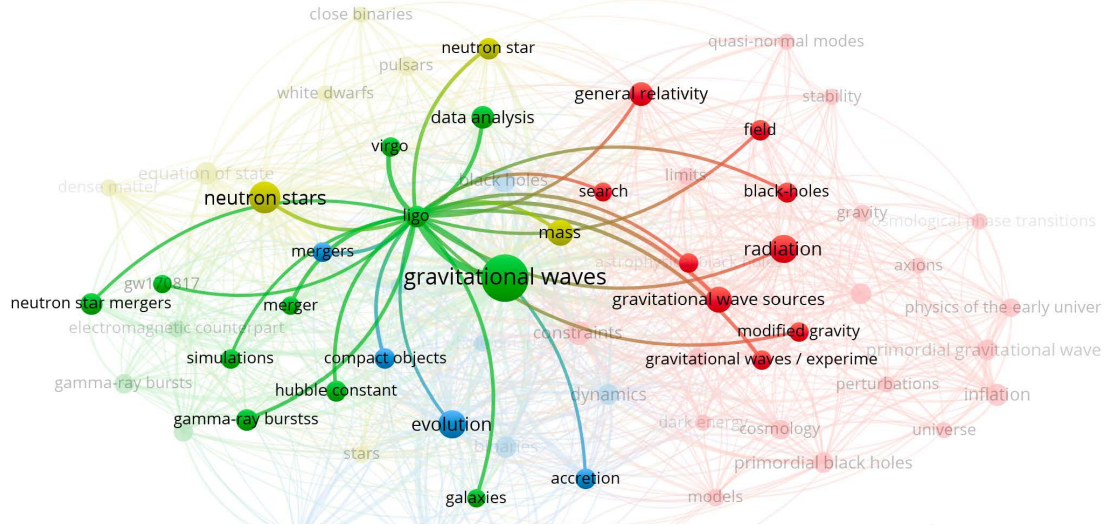
Addressing the problem of the LIGO–Virgo–KAGRA visibility in the scientific literature

Pablo Barneo^{1,2}, Giuseppe Cabras^{3,4}, Pierre-Francois Cohadon⁵, Livia Conti^{6,a} , Davide Guerra⁷, Edoardo Milotti^{4,8}, Jerome Novak⁹, Agata Trovato^{4,8}, and Andrea Virtuoso^{4,8}

Abstract As members of the Virgo Collaboration—one of the large scientific collaborations that explore the universe of gravitational waves together with the LIGO Scientific Collaboration and the KAGRA Collaboration—we became aware of biased citation practices that exclude Virgo, as well as KAGRA, from achievements that collectively belong to the wider LIGO/Virgo/KAGRA Collaboration. Here, we frame these practices in the context of Merton’s “Matthew effect”, extending the reach of this well-studied cognitive bias to include large international scientific collaborations. We provide qualitative evidence of its occurrence, displaying the network of links among published papers in the scientific literature related to Gravitational Wave science. We note how the keyword “LIGO” is linked to a much larger number of papers and variety of subjects than the keyword “Virgo”. We support these qualitative observations with a quantitative study based on a year-long monitoring of the relevant literature, where we scan all new preprints appearing in the arXiv electronic preprint database. Over the course of one year, we identified all preprints failing to assign due credits to Virgo. As a further step, we undertook positive actions by asking the authors of problematic papers to correct them. Here, we also report on a more in-depth investigation which we performed on problematic preprints that appeared in the first three months of the period under consideration, checking how frequently their authors reacted positively to our request and corrected their papers. Finally, we measure the global impact of papers classified as problematic and observe that, thanks to the changes implemented in response to our requests, the global impact (measured as the number of citations of papers which still contain Virgo visibility issues) was halved. We conclude the paper with general considerations for future work in a wider perspective.

→ LVK **visibility**: Long-standing project. VIR-0128A-24.

Web Of Science database, strings *gravitational waves*, *gravitational wave* or *gravitational-wave*. Visualization: VOSviewer.



Early Feb 2024

→ Improving the [Virgo Wikipedia](#) page: coordinated by [Thomas Sainrat](#), one-year project, contributions from a lot of Virgo members. VIR-0127A-24.

- Virgo specific [articles](#): (i) Virgo interferometer; (ii) EGO. No Collaboration article. No LVK article.

- Peak of visits in 2023: PTA stochastic background announcement.

- [Structure](#):

- Organization (new) – presentation
 - History – from conception to future

- Science case – sources and measurements

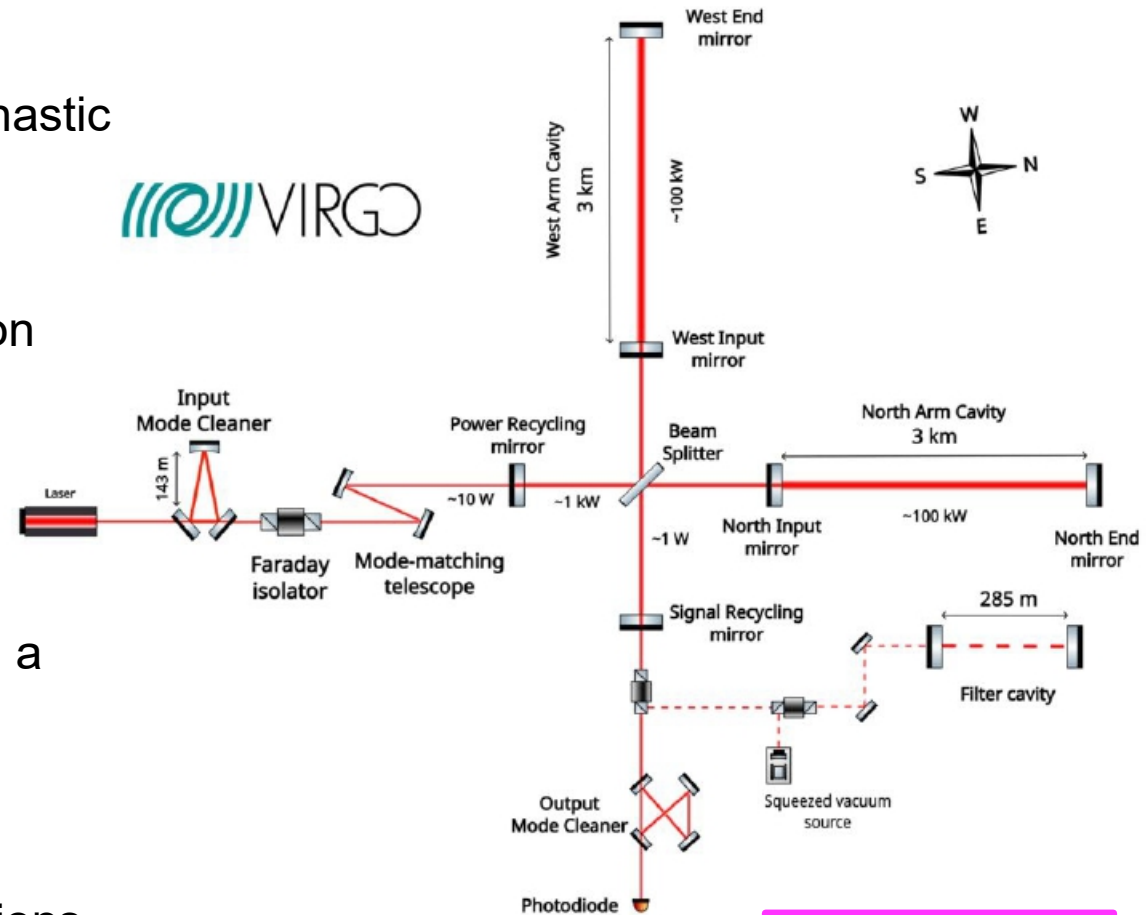
- Instrument – longest sect.

- Data analysis (new) – splitted in a separate article

- Scientific results – short

- Outreach (new) – short

- New [diagrams](#), including animations (Livia Conti, Giacomo Ciana, Jérôme Degallaix).



Translations...



→ Participation in science (national/international) festivals: e.g., **Pint of Science** (several Virgo members during last years), **Science Festival in Genova**, **2023 Science Festival Bergamo**.

→ Drafting an **article** *Virgo in Prison Facilities* for the **European Prison Education Association** (EPEA) newsletter. Coordinator: **Alberto Colombo**. International Day for Education in Prisons: October 13th. VIR-1007A-23. +Livia Conti, Fabio Garufi, Annalisa Allocca. ++I. Cordero-Carrión, J. Degallaix.

→ **Website** continuously development: e.g., **job offer page** in Virgo website.
<https://www.virgo-gw.eu/job-offer-submit/>

→ International Day of **Women and Girls** in science – 11th feb: **Video** produced by the communication team featuring women in the Virgo Collaboration.
Coordinator: **Giada Rossi**.



→ **Social media** and **institutional communications**:

- Social media campaigns: Virgo20#, Woman of Virgo, **Virgo joining O4b** (LVK comms team). Significant media coverage.
- **Article** with an interview to Virgo spokesperson, **Gianluca Gemme**, in last **LIGO magazine** about Virgo status and plans.

→ Coordination with the rest of Virgo groups & LVK to face future **publications**: discoveries, science summaries, global searches.

→ **Virgo beginner's guide** recently update: latest version released in Nov 2023.

→ **Master classes** ongoing project: preliminar material ready; support to develop webpage in progress; coordination from Virgo groups in several countries.

→ Educational **soundmap**: exploring gravitational-wave transient events. Coordinator: Giuseppe Greco+. VIR-0644A-23. <https://virgo.pg.infn.it/soundmap/>

→ Support to organize outreach and educational events: e.g., international **training schools**. Erasmus+ applications in mind.