

# Astro(particle) physics in a nutshell

## Collaboration outreach proposal

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**Proposal idea: Multilingual science communication channel (e.g. Youtube) managed and supported by two institutes (one from the state of Sao Paulo, one from Bavaria) for undergraduate physics students explaining astrophysical processes.**

The channel will host videos that simplify astrophysical concepts, making them easily understandable for undergraduate students. Each video will focus on a specific topic or concept, providing clear explanations and visuals to enhance comprehension. We will collaborate to develop educational content for the YouTube channel. Combining our knowledge and expertise will create a comprehensive range of videos covering various astrophysics topics. This collaborative approach will ensure a diverse and enriching educational experience for the students.

To make the science communication channel unique, the general setting is a coffee break conversation between three PhD students, each talking in one of the three languages - Portuguese, English and German - about Astro(particle) physics. To maximize accessibility, we will provide multilingual subtitles for the videos. By translating the content into different languages, we can reach a broader audience and cater to students from various countries. This collaboration between our institutions will not only provide accessible and engaging educational resources but also enhance the visibility of our institutes and their groundbreaking work in the field of astrophysics.

Possible topics we could cover:

- Fermi acceleration
- Black holes
- Cherenkov radiation
- Cosmic ray spectrum
- Instrument operation (IACTs, X-ray satellites etc.)