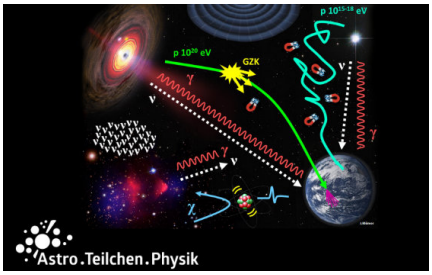

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Radio Detection of Cosmic Ray Air Showers with GRAND using an autonomous trigger

Wednesday, October 16, 2024 5:53 PM (2 minutes)

Ultra-high energy (UHE) cosmic rays and neutrinos induce particle cascades in the atmosphere, called extensive air showers. The Giant Radio Array for Neutrino Detection (GRAND) is designed for measuring the radio emission of inclined air showers to cover a larger detection area. It will consist of multiple sub-arrays and a total area of 200 000 km² with one radio antenna per square kilometre. At full capacity, GRAND will detect UHE neutrinos, gaining information on the sources they share with UHE cosmic rays. In contrast to existing arrays, GRAND will operate on radio events alone, hence efficient radio triggering techniques are in development.

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Summary

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Session Classification: Poster session leading into social dinner buffet