



**Institut de Física
d'Altes Energies**



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ICREA Senior Call (Research Professor Position in Gravitational Wave Physics at IFAE)

The "Institut de Física d'Altes Energies" (IFAE) in Barcelona welcomes applications for a tenured research professor position in Gravitational Waves (GWs) Physics, within the framework of the ICREA's (Catalan Institute for Advanced Research) senior call.

<https://www.icrea.cat/en/calls>

IFAE is a member institution of the Virgo collaboration. A group of researches from IFAE has taken significant responsibilities in the Virgo experiment related to the control of the stray light inside the experiment, which is considered a limiting factor for its sensitivity. The group plans for playing an important role in the ongoing commissioning, operations and upgrade of the interferometer. For the latter, IFAE proposed the construction of new baffles instrumented with photo sensors around the test masses.

In the physics analysis front, the IFAE research program, using LIGO/Virgo data, includes topics related to: compact binary coalescence and their mass/spin spectrum determination; search for primordial black holes as candidates for dark matter; searches for axion-like signals in GWs; Test of exotic models for Gravity beyond General Relativity; determination of the universe expansion rate using GWs; and using GWs as probes for inflation and phase transitions in the early universe. IFAE will be in a privileged position to analyze the LIGO/Virgo data and, in collaboration with IFAE's teams in CTA/MAGIC and Observational Cosmology, to fully profit from a multi-messenger approach.

Finally, IFAE is actively exploring a potential long-term involvement in 3G terrestrial interferometry projects and/or space missions.

Interested candidates with an excellent CV are encouraged to contact IFAE, acting as potential host institution in supporting the application.

The application deadline is March 14th, 2019.

For further information please contact

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