



Universidade Federal do Espírito Santo
Departamento de Física, CCE
Vitória, ES - Brazil.



Programa de Pós-Graduação em
Astrofísica, Cosmologia e Gravitação

Interactions in the dark sector of the universe

- Certificate -

The Organising Committee attests that Alan Miguel Velásquez Toribio has participated in the *Interactions in the dark sector of the universe* and presented the work *Gaussian Processes and Dark Energy*.

The Meeting was held in Santa Teresa, ES, Brazil, from June 03 to 06 of 2018. Additional details can be found in <http://www.cosmo-ufes.org/winfried.html>, or from the e-mail site@cosmo-ufes.org.

Rodrigo von Marttens

(On behalf of the organising committee)



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The Organising Committee attests that Antônio Brasil Batista has participated in the *Interactions in the dark sector of the universe* and presented the work *Quantum cosmology in scalar-tensor theories*.

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The Organising Committee attests that Olesya Galkina Vieira has participated in the *Interactions in the dark sector of the universe* and presented the work *Particle Creation in Expanding Universe*.

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The Organising Committee attests that Oliver Fabio Piattella has participated in the *Interactions in the dark sector of the universe* and presented the work *Stability of neutron stars in $R + \alpha R^2$ gravity*.

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The Organising Committee attests that Tassia Andrade Ferreira has participated in the *Interactions in the dark sector of the universe* .

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The Organising Committee attests that Edison Cesar de Oliveira Santos has participated in the *Interactions in the dark sector of the universe* .

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The Organising Committee attests that Adriano Mesquita Oliveira has participated in the *Interactions in the dark sector of the universe* .

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The Organising Committee attests that Davi Cabral Rodrigues has participated in the *Interactions in the dark sector of the universe* and presented the work *On the cosmology of Renormalization Group-inspired extensions of General Relativity*.

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The Organising Committee attests that Claudio Cesar Lazarte Melgar has participated in the *Interactions in the dark sector of the universe* .

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The Organising Committee attests that Nathália Mattos Novaes da Rocha has participated in the *Interactions in the dark sector of the universe* and presented the work *Time-scale analysis of the quasar 3C 273 from radio waves to γ -rays*.

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The Organising Committee attests that William Celestino Algoner Jorge has participated in the *Interactions in the dark sector of the universe* and presented the work *Matter growth in imperfect fluid cosmology*.

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The Organising Committee attests that Humberto Belich Junior has participated in the *Interactions in the dark sector of the universe* and presented the work *Geometric relativistic phase from Lorentz symmetry breaking effects in the cosmic string spacetime*.

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The Organising Committee attests that Eduardo André de Figueiredo Bragança has participated in the *Interactions in the dark sector of the universe* and presented the work *Cosmic strings configurations in a dissipative gravity*.

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The Organising Committee attests that Rodrigo Gonçalves has participated in the *Interactions in the dark sector of the universe* and presented the work *Measuring the Homogeneity Scale with Matter Tracers*.

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The Organising Committee attests that David Francisco Camarena Torres has participated in the *Interactions in the dark sector of the universe* and presented the work *Can coupled quintessence explain the Hubble tension?*.

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The Organising Committee attests that Ronaldo Carlotto Batista has participated in the *Interactions in the dark sector of the universe* and presented the work *Spherical Collapse of non-top-hat profiles in the presence of clustering dark energy*.

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The Organising Committee attests that Raquel Emy Fazolo has participated in the *Interactions in the dark sector of the universe* and presented the work *On the difficult to distinguish non adiabatic dark energy models to the LambdaCDM model*.

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