



# Radouane Gannouji

Associate Professor

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## Field of research

Cosmology	★★★★★★★★★★
Modified gravity	★★★★★★★★★★
Black holes	★★★★★★★★★★
Neutron stars	★★★★★★★☆☆☆

## Academic career

Associate professor	2014 – Present
PUCV (Pontifical Catholic University of Valparaíso), Valparaíso, Chile	
Postdoctorate	2012 – 2014
ACRU (Astrophysics and Cosmology Research Unit), Durban, South Africa	
Postdoctorate	2010 – 2012
Tokyo University of Science, Tokyo, Japan	
Postdoctorate	2008 – 2010
IUCAA (Inter-University Centre for Astronomy and Astrophysics), Pune, India	

## Academic degrees

<b>PhD - University Montpellier 2 - France</b>	<b>2005 – 2008</b>
Title: The mysteries of the accelerated expansion of the universe	
Supervisor: David Polarski	
Members of the commission: Luca AMENDOLA, Michael JOYCE, Reynald PAIN, David POLARSKI, Philippe ROCHE	
<b>Master of Science - University of Paris - France</b>	<b>2003 – 2005</b>
Master in theoretical physics	
<b>Bachelor of Science - University of Paris - France</b>	<b>2000 – 2003</b>
Bachelor in physics and Bachelor in mathematics in parallel	

## Publications

DGP black holes on the brane  
 Radouane Gannouji.  
 Eur.Phys.J. C78 (2018) no.4, 318

Global structure of static spherically symmetric solutions surrounded by quintessence  
 Miguel Cruz, Apratim Ganguly, Radouane Gannouji, Genly Leon, Emmanuel N.

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Saridakis.

*Class.Quant.Grav.* 34 (2017) no.12, 125014

Early-time cosmological solutions in Einstein-scalar-Gauss-Bonnet theory

Panagiota Kanti, Radouane Gannouji, Naresh Dadhich.

*Phys.Rev. D92* (2015) no.8, 083524

Gauss-Bonnet Inflation

Panagiota Kanti, Radouane Gannouji, Naresh Dadhich

*Phys.Rev. D92* (2015) no.4, 041302

Global structure of black holes via the dynamical system

Apratim Ganguly, Radouane Gannouji, Rituparno Goswami, Subharthi Ray.

*Class.Quant.Grav.* 32 (2015) 10, 105006

Stability and existence analysis of static black holes in pure Lovelock theories

Radouane Gannouji, Naresh Dadhich.

*Class.Quant.Grav.* 31 (2014) 165016.

Neutron stars in the Starobinsky model

Apratim Ganguly, Radouane Gannouji, Rituparno Goswami, Subharthi Ray.

*Phys.Rev. D89* (2014) 6, 064019.

Quasidilaton nonlinear massive gravity: Investigations of background cosmological dynamics

Radouane Gannouji, Md. Wali Hossain, M. Sami, Emmanuel N. Saridakis.

*Phys.Rev. D87* (2013) 123536.

Spontaneous symmetry breaking in cosmos: The hybrid symmetron as a dark energy switching device

K. Bamba, R. Gannouji, M. Kamijo, S. Nojiri, M. Sami.

*JCAP* 1307 (2013) 017.

Light mass galileons: Cosmological dynamics, mass screening and observational constraints

Amna Ali, Radouane Gannouji, Md.Wali Hossain, M. Sami.

*Phys.Lett. B718* (2012) 5-14.

Generic  $f(R)$  theories and classicality of their scalarons

Radouane Gannouji, M. Sami, I. Thongkool.

*Phys.Lett. B716* (2012) 255-259.

FLRW cosmology in Weyl-Integrable Space-Time

Radouane Gannouji, Hemwati Nandan, Naresh Dadhich.

*JCAP* 1111 (2011) 051.

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Vainshtein mechanism in Gauss-Bonnet gravity and Galileon aether

Radouane Gannouji, M. Sami.

*Phys.Rev. D85 (2012) 024019.*

Chameleon dark energy models with characteristic signatures

Radouane Gannouji, Bruno Moraes, David F. Mota, David Polarski, Shinji Tsujikawa, Hans A. Winther.

*Phys.Rev. D82 (2010) 124006.*

Modified gravity a la Galileon: Late time cosmic acceleration and observational constraints

Amna Ali, Radouane Gannouji, M. Sami.

*Phys.Rev. D82 (2010) 103015.*

Galileon gravity and its relevance to late time cosmic acceleration

Radouane Gannouji, M. Sami.

*Phys.Rev. D82 (2010) 024011.*

Background cosmological dynamics in  $f(R)$  gravity and observational constraints

Amna Ali, Radouane Gannouji, M. Sami, Anjan A. Sen.

*Phys.Rev. D81 (2010) 104029.*

The dispersion of growth of matter perturbations in  $f(R)$  gravity

Shinji Tsujikawa, Radouane Gannouji, Bruno Moraes, David Polarski.

*Phys.Rev. D80 (2009) 084044.*

Constraining  $f(R)$  gravity models with disappearing cosmological constant

I. Thongkool, M. Sami, Radouane Gannouji, Sanjay Jhingan.

*Phys.Rev. D80 (2009) 043523.*

The growth of matter perturbations in  $f(R)$  models

Radouane Gannouji, Bruno Moraes, David Polarski.

*JCAP 0902 (2009) 034.*

The growth of matter perturbations in some scalar-tensor DE models

Radouane Gannouji, David Polarski.

*JCAP 0805 (2008) 018.*

On the growth of linear perturbations

David Polarski, Radouane Gannouji.

*Phys.Lett. B660 (2008) 439-443.*

Conditions for the cosmological viability of  $f(R)$  dark energy models

Luca Amendola, Radouane Gannouji, David Polarski, Shinji Tsujikawa.

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*Phys.Rev. D75 (2007) 083504.*

Scalar-Tensor Models of Normal and Phantom Dark Energy

Radouane Gannouji, David Polarski, Andre Ranquet, Alexei A. Starobinsky.

*JCAP 0609 (2006) 016.*

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