



# Curriculum Vitae

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## Personal data

Full Name **Octavio A. Fierro Mondaca**  
Office **29, Departamento de Matemáticas y Física Aplicadas, UCSC**  
Phone **+56 41 2345690**  
E-mail **oferro@ucsc.cl**

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## Position

2016 **Auxiliary Professor, U. Católica de la Santísima Concepción, Concepción, Chile**

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## Degrees

2006 **B.Sc. in Physics, Universidad Católica del Norte, Antofagasta, Chile**  
2014 **Ph.D. in Physics, Universidad de Concepción, Concepción, Chile**

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## Research

My research interests lie in gravitation and high energy physics, principally

- **Black holes. In particular BH perturbations and quasinormal modes.**
- **Lie algebras in physics applications.**
- **Chern-Simons lagrangians.**
- **Supergravity.**
- **Conformal gravity.**

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## Publications

- [1] **P.Troncoso, O. Fierro, S. Curilef & A.R. Plastino.**, *A family of evolution equations with nonlinear diffusion, Verhulst growth, and global regulation: Exact time-dependent solutions*, Physica A, 457 - 466, (2007)
- [2] **J. Díaz, O. Fierro, F. Izaurieta, N. Merino, E. Rodriguez, P. Salgado & O. Valdivia.**, *A generalized action for (2 + 1)-dimensional Chern-Simons gravity*, J.Phys. A45, 255207 , (2012)
- [3] **O. Fierro, F. Izaurieta, P. Salgado & O. Valdivia.**, *(2 + 1)-dimensional supergravity invariant under AdS-Lorentz superalgebra*, Submit to Phys. Lett. B, hep-th/1401.3697, (2014)
- [4] **P.K. Concha, O. Fierro, E.K. Rodríguez & P. Salgado.**, *Chern-Simons supergravity in  $D = 3$  and Maxwell superalgebra*, Phys.Lett. B750, 117-121, (2015)
- [5] **P.K. Concha, O. Fierro, E.K. Rodríguez.**, *Inönü-Wigner contraction and  $D = 2 + 1$  supergravity*, Eur.Phys.J. C77 no.1, 48, (2017)

- [6] **M. Chernicoff, O. Fierro, G. Giribet & J. Oliva.**, *Black holes in quasi-topological gravity and conformal couplings*, JHEP 1702, 010, (2017)

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## Teaching

- 2010-2013 **Universidad Andrés Bello**, *Física I*, for engineering students  
2011-2015 **Universidad Andrés Bello**, *Física Aplicada*, for odontology students  
2013 **Universidad Andrés Bello**, *Mecánica*, for engineering and geology students  
2013-2016 **Universidad Andrés Bello**, *Electricidad y Magnetismo*, for engineering students  
2014-2015 **Universidad de Concepción**, *Física II*, for engineering students  
2014 **Universidad de Concepción**, *Oscilaciones y Ondas*, for physics students  
2015 **Universidad de Concepción**, *Mecánica*, for civil engineering students  
2016 **UCSC**, *Física*, for marine biology students  
2016 **UCSC**, *Física II*, for chemistry students  
2016 **UCSC**, *Cinemática y Dinámica*, for civil engineering students  
2016 **UCSC**, *Estática y Dinámica*, for engineering students  
2016 **UCSC**, *Electromagnetismo y Circuitos*, for engineering students

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## Last meetings

- March 26-27, 2015 **IV Cosmoconce**, (*Oral presentation*), Universidad del Bio Bio, Concepción, Chile.  
December 7-18, 2015 **Higher Spins, Strings and Dualities**, (*Assistant*), Universidad Andrés Bello, Quintay, Chile.  
January 4-8, 2016 **Gravitation school 2016**, (*Assistant*), Universidad de Concepción, Concepción, Chile.  
January 10-15, 2016 **Spacetimes with Anisotropic Scaling Symmetry and Holography**, (*Assistant*), Universidad Adolfo Ibañez, Viña del Mar, Chile.  
April 07-08, 2016 **V Cosmoconce**, (*Oral presentation*), Universidad del Bio Bio, Concepción, Chile.  
July 18-22, 2016 **AdS/CFT school**, (*Assistant*), Universidad Adolfo Ibañez, Viña del Mar, Chile.