

# ELENA CACERES

Associate Professor

Department of Physics  $\diamond$  University of Texas at Austin  
elenac@utexas.edu  $\diamond$  <http://zippy.ph.utexas.edu/~elenac>

## EDUCATION

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- University of Texas at Austin** *Dec 1996*  
Ph.D. in Physics
- Universidad Católica del Perú** *Dec 1986*  
B.S. in Physics

## EXPERIENCE

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- 2017-present Associate Professor, Department of Physics, **University of Texas at Austin**.
- 2005-2017 Professor, Facultad de Ciencias, **Universidad de Colima**, Colima, México.
- 2011-2017 Adjunct Professor, Department of Physics, **University of Texas at Austin**.
- 2002-2004 Professor/Researcher,  
**CINVESTAV**, Department of Physics, Mexico City, Mexico.
- 2002 Visiting Scientist.  
Department of Physics, **Brown University**, Providence, Rhode Island, U.S.A.
- 1999-2001 Postdoctoral Fellow.  
High Energy Section, **International Center for Theoretical Physics (ICTP)**, Trieste, Italy.
- 1996-1999 Postdoctoral Fellow.  
**Department of Physics, University of California at Los Angeles (UCLA)**, Los Angeles, California, U.S.A.

## EXTENDED VISITS

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- July 2017 **Centro de Ciencias de Benasque Pedro Pascual**, Benasque, Spain.
- June 2017 **Aspen Center for Physics**, Aspen, Colorado, U.S.A.
- May/June 2016 **Yukawa Institute for Theoretical Physics**, Kyoto, Japan.
- June 2016 **RIKEN, Quantum Hadron Physics Laboratory**, Tokyo, Japan.
- Apr/May 2015 **Kavli Institute for Theoretical Physics**, Santa Barbara, California, USA.
- Mar/Apr 2015 **Galileo Galilei Institute for Theoretical Physics**, Florence, Italy.
- Feb 2013 **Banff International Research Station**, Banff, Canada.
- Apr 2013 **University of Michigan at Ann Arbor**, Michigan, U.S.A.
- August 2011 **International Center for Theoretical Physics**, Trieste, Italy.
- June 2009 **Aspen Center for Theoretical Physics**, Aspen, Colorado, U.S.A.
- July 2008 **Kavli Institute for Theoretical Physics**, Santa Barbara, California, U.S.A.

May/Jun. 2008 **University of Washington at Seattle**, Washington, U.S.A.  
 May 2007 **Perimeter Institute**, Waterloo, Canada.  
 Spring 2007 **University of Texas at Austin**, Austin, TX, U.S.A.  
 August 2006 **Kavli Institute for Theoretical Physics**, Santa Barbara, California, U.S.A.  
 August 2004 **Kavli Institute for Theoretical Physics**, Santa Barbara, California, U.S.A.  
 June 2004 **International Center for Theoretical Physics**, Trieste, Italy.  
 Fall 2002 **Brown University**, Providence, Rhode Island, U.S.A.  
 May 2000 **Tel Aviv University**, Tel Aviv, Israel.

## DISTINCTIONS

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- **Member of the Mexican Science Academy of Science** 2010-present
- **2014 Woman in Science** State of Colima, Mexico
- **Teaching Award** Department of Physics, University of Colima

## GRANTS

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- ICTP network grant, “Latin American Network in Quantum Gravity and Holography”, 2019-2021
- NSF grant 1820712 (PI), ”On Holography, Casuality and Spacetime” , 2018-2021, 150,000 USD.
- CONACyT Research Grant 2015-2018.  
 “Holography, Fields and Entanglement” .  
 Joint grant with Mariano Chernicoff, Antonio García and Alberto Güijosa (UNAM)  
 1,690,000 Mexican pesos ~ 92,500 USD.
- Simons Foundation grant, 2017, covered expenses associated with participation in Aspen workshop, 3,000 USD.
- CONACyT Research Grant 2010-2014  
 “String Theory and the Quark Gluon Plasma” .  
 Joint grant with Antonio García and Alberto Güijosa (UNAM).  
 1,100,000 Mexican pesos ~ 80,000 USD.
- CONACyT Personal Research Grant 2007-2009  
 “Holography, String Theory and Quantum Chromodynamics” .  
 45,000 USD.
- University of Colima, FRABA grant 2005-2006.  
 “Glueball Spectrum in String Theory” .  
 5,000 USD.
- CONACyT Personal Research Grant 2004-2005  
 “String Theory and Quantum Chromodynamics” .  
 20,000 USD.

- NSF -CONACyT 2003-2005.  
“Non-Perturbative studies in string theory”  
Joint grant CINEVESTAV(Mexico)-UNAM(Mexico)- Brown University (U.S.A).  
NSF: 89,000 USD    CONACyT: 158,400 Pesos Mexicanos

## REFEREE AND REVIEWER

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Referee of several journals, among them:

- ★ Journal for High Energy Physics, JHEP
- ★ Physics Letters B
- ★ Nuclear Physics B
- ★ General Relativity and Gravitation

Reviewer for:

- CONACYT grants, 2006, 2007, 2008, 2010.
- CONACYT post-doctoral fellowships 2009, 2016
- CONACYT sabbatical fellowships 2010

## CONFERENCE ORGANIZATION

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- Hard Probes 2020, Austin, Texas, 2020
- 27th International Conference on Supersymmetry and Unification of Fundamental Interactions (SUSY 2019), Corpus Christi, 2019
- Latin-American Workshop on Gravity and Holography, ICTP-SAIFR Sao Paulo, Brazil, June 2018
- Southwest Holography Meeting, Austin, Texas, 2018
- Mexicuerdas 2017, UNAM, Mexico City, Mexico, August 2017
- Mexicuerdas 2016, UNAM, Mexico City, Mexico, August 2016
- Mexican School of Strings and Supersymmetry, Guanajuato, June 2015
- BCVSPIN-MSPF-Mitchell Advanced School in Particle Physics and Cosmology, Manzanillo, December 2014
- Mexican School of Strings and Supersymmetry, Guanajuato, June 2013
- Mexicuerdas 2014, Colima, Mexico, June 2014
- Mexstrings 2014, Colima, Mexico, June 2014
- Mexicuerdas 2013, Guanajuato, Mexico, June 2013
- Austin Holography Workshop, University of Texas at Austin, May 2013
- IX Workshop of the Division of Gravitation and Mathematical Physics, Colima, Colima, 2011
- XIV Mexican School of Particles and Fields. Morelia, Michoacán, 2010.
- Mexicuerdas 2010, Colima, 2010.
- XII Mexican Workshop of Particles and Fields. Mazatlán, Sinaloa, 2009.
- Mexicuerdas 2009, Mexico City, 2009.
- XIII Mexican School of Particles and Fields. San Carlos, Sonora, 2008.

- Mexicuerdas 2008, San Carlos, 2008.

## COURSES TAUGHT

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PHY 373, Quantum Mechanics I  
University of Texas at Austin, Fall 2018

PHY 352K, Electrodynamics I  
University of Texas at Austin, Spring 2018.

Physics 3  
University of Colima, Fall 2016.

Mathematical Methods for Physicists  
University of Colima, Fall 2016.

Special Relativity  
University of Colima, Fall 2015.

Electromagnetism II  
University of Colima, Spring 09. Spring 10.

Electromagnetism I  
University of Colima, Fall 08, Fall 10, Fall 11, Fall 13.

Quantum Mechanics I  
University of Colima, Fall 05, Fall 06, Fall 07, Fall 09, Fall 13.

Quantum Mechanics II  
University of Colima, Fall 10, Fall 12.

Supersymmetry  
University of Colima, Fall 08.

General Physics III  
University of Colima, Fall 2016

General Physics 1  
University of Colima, Fall 05, Fall 06, Fall 07, Fall 08, Fall 09.

Physics 003  
Physics for pre-medical students, Brown University, 2002.

Physics 10  
Physics for non-science majors.  
UCLA, Summer 1998.

### **Courses taught at graduate summer schools**

Mexican School of Strings and Supersymmetry, Guanajuato, June 2015  
“Supersymmetry”

BCVSPIN-MSPF-Mitchell Advanced School in Particle Physics and Cosmology, Manzanillo, December 2014  
“AdS/CFT”

Mexican School of Strings and Supersymmetry, Guanajuato, June 2013  
“Supergravity in diverse dimensions”

Mexican School of Strings and Supersymmetry, Guanajuato, May 2011  
“Supersymmetry and supergravity in diverse dimensions”

III Escuela Fundamental de Física Teórica, Morelia, July 2007;  
“*Lectures on String Theory*”.

## STUDENTS

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### • Ph.D.

- Rodrigo Castillo      **University of Texas at Austin**  
Graduation date: 2022 (expected)
- Anderson Misobuchi      **University of Texas at Austin**  
Graduation date: 2021 (expected)
- Rafael Pimentel      **University of Texas at Austin**  
Graduation date: 2021 (expected)
- Steve Young      Thesis title: “Non-Supersymmetric Holographic Engineering And U-Duality”  
**University of Texas at Austin**, Austin, Texas, USA.  
Graduation date: 2012
- Xavier Amador      Thesis title: “Topics on QCD and String Theory”  
**CINVESTAV**, Mexico City, Mexico.  
Graduation date: 2005.

### • Masters

- Manuel Sánchez      Thesis title: “Holographic Entanglement Entropy in Time Dependent Gauss-Bonnet”  
**UNAM**, Mexico City, Mexico.  
Graduation date: January 2016

### • Bachelors of Science

- Diego Reyna      Thesis title: “Causal Holographic Information”  
**University of Colima**, Colima, Mexico.  
Graduation date: May 2017
- Julio Virrueta      Thesis title: “Holographic Entanglement Entropy in Gauss-Bonnet gravity”  
**University of Colima**, Colima, Mexico.  
Graduation date: July 2016
- Aranza García      Thesis title: “Spiral Waves Dynamics”  
**University of Colima**, Colima, Mexico.  
Graduation date: July 2012
- Tarcila Angulo      Thesis Title: “Vibrational modes of two-dimensional membranes; Weyl’s law”.  
**University of Colima**.  
Graduation Date: Aug. 2010

Carmen Valdéz	Thesis Title: “An application of synchronized chaos: sending secret messages”. <b>University of Colima.</b> Graduation Date: Jan 2010
César Bonilla	Thesis Title: “Quark Gluon Plasma, Shear Viscosity and AdS/CFT”. <b>University of Colima.</b> Graduation Date: August 2009
Claudia Velez	Thesis title: “Radion stabilization and the Randall-Sundrum model”. <b>University of Colima.</b> Graduation Date: May 2007
Eric Pulido	Thesis title: “Wilson Loops at finite temperature and the AdS/CFT correspondence”. <b>University of Guadalajara.</b> Graduation Date: August 2007

## INVITED TALKS

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- ▷ Departmental Seminar, University of Texas at San Antonio, September 2018  
*“Holography, quantum information and the nature of spacetime”*
- ▷ Mexicuerdas 2018, CINVESTAV, Mexico City, August 2018  
*“On Subregion Complexity”*
- ▷ Latin-American Workshop on Gravity and Holography, ICTP-SAIFR, Sao Paulo, Brazil, June 2018  
*“Rotating Traversable Wormholes”*
- ▷ University of Minnesota, Minneapolis, Minnesota, April 2018  
*“Rotating Traversable Wormholes”*
- ▷ University of Kentucky, Lexington, Kentucky, February 2018  
*“Rotating Traversable Wormholes”*
- “Holography and quantum information”, Fall 2017 APS meeting, University of Texas at Dallas, October 2017
- ▷ University of Amsterdam, The Netherlands, December 2017  
*“Rotating Traversable Wormholes”*
- ▷ Mexicuerdas 2017, Mexico City, UNAM, August 2017  
*“Divergences in subregion complexity”*
- ▷ Departmental Colloquium, Department of Physics, University of Texas at Austin, October 2016,  
*“Holography and Entanglement”*
- ▷ Theory Seminar, RIKEN, Tokyo, Japan, June 2016,  
*“On holographic entanglement entropy and boundary causality in Gauss Bonnet gravity”*
- ▷ Holography and Quantum Information Conference, YITP, Kyoto, Japan, May 2016,  
*“Causal Holographic Information in Higher Derivative Theories”*
- ▷ Holographic Methods for Strongly Coupled Systems Workshop, Galileo Galilei Institute for Theoretical Physics, Florence, Italy, March 2015  
*“ Holographic entanglement entropy in Gauss-Bonnet theories: time and shadows”*

- ▷ Black Holes in Supergravity, Higher-Spin Gravity and String Theory Conference, Mitchell Institute, Texas A&M University, College Station, April 2014  
*“Holographic entanglement entropy, charged black holes and time dependence”*
- ▷ Holography and Applied String Theory Workshop, Banff International Research Station, Canada, February 2013  
*“Entanglement Entropy in AdS-RN-Vaidya”*
- ▷ Physics Colloquium, University of Iowa, April 2012  
*“Applications of Gauge/Gravity Duality - Recent Developments”*
- ▷ Theory Seminar, University of Kentucky, Lexington, April 2012  
*“Entanglement entropy, charged black holes and out of equilibrium systems” “Holographic Thermalization with Chemical Potential ”*
- ▷ XIII Mexican Workshop on Particles and Fields, Leon, Mexico Oct 2011  
*“SUSY breaking in the baryonic branch”.*
- ▷ Theory seminar, Texas A&M University, College Station, Texas, Feb. 2011.  
*“ Heating up the baryonich branch with U duality”.*
- ▷ Colloquium, CINVESTAV, Mexico City, October 2010.  
*“ Gauge/Gravity Duality and Condensed Matter systems”*
- ▷ Brown Bag Seminar, Weinberg Theory Group, University of Texas at Austin, May 2010  
*“NS-5 branes on  $Y_{pq}$ ”.*
- ▷ Mexicuerdas 2010, May 2010, Colima, Mexico.  
*“ NS-5 branes and Non-Kähler backgrounds”.*
- ▷ XII Mexican Workshop on Particles and Fields, Mazatlan, Sinaloa, Mexico, November 2009  
*”Wrapping NS-5 branes on the resolved  $Y_{pq}$ ”.*
- ▷ Mexicuerdas 2009, October 2009, Mexico City, Mexico.  
*“ AdS/CFT and flavor superconductivity”.*
- ▷ Tamura Symposium, Austin, Texas, USA, November 2008  
*“Heavy Flavor Suppression -and more- from gauge/gravity duality”.*
- ▷ XIII Mexican School on Particles and Fields, San Carlos, Sonora, Mexico, October 2008  
*” $N_f = 2N_c$  SQCD-like theories”.*
- ▷ “From Strings to Things”, Institute for Nuclear Physics, Seattle, USA, May 2008  
*“Beyond the probe Approximation: SQCD-like theories”.*
- ▷ Brown Bag Seminar, Weinberg Theory Group, University of Texas at Austin, Austin, USA, April 2008  
*“Second order hydrodynamics and conformal theories”.*
- ▷ XI Mexican Workshop 2007 on Particles and Fields, Tuxtla, Nov 12-17, 2007  
*“Introduction to String Theory”.*
- ▷ Workshop on SUSY and string phenomenology, Dual C-P Institute of High Energy Physics, August 15-21 2007;  
*“Quark gluon plasma signatures from gauge/gravity duality”*
- ▷ Brown Bag, Weinberg Theory Group, University of Texas at Austin, March 2007;  
*“Screening length from gauge/gravity duality”.*
- ▷ Seminar, High Energy Physics Group, ICN, UNAM, Mexico City, January 2007;  
*“ String Theory and the Quark-Gluon Plasma”.*

- ▷ Colloquim, University of Colima, September 2006;  
“ *Que es el Quark Gluon Plasma?* ”.
- ▷ 2006 Workshop: Current trends in EWSB and flavor  
“*String theory and hydrodynamics of strongly coupled gauge theories*”
- ▷ X Mexican Workshop on Particles and Fields, Morelia, Mexico.  
“*Status of Glueball Spectrum from Supergravity*”
- ▷ Brown Bag, Weinberg Theory Group, University of Texas at Austin, Texas, USA, May 2005;  
“*N=1 Super Yang Mills glueball Spectrum from Wrapped Branes*”
- ▷ Physics Colloquim, Williams College, MA, USA, April 2005;  
“*String Theory and Quantum Chromodynamics*”
- ▷ Colloquium, Universidad de Colima, Colima, Mexico, Marzo 2005;  
“*Teoria de Cuerdas y Cromodinamica Cuantica*”
- ▷ 8th QCD Workshop on Non-Perturbative QCD, Paris, June 2004;  
invited speaker, “ *Glueball Spectrum and Regge Trajectory from Supergravity*”
- ▷ Seminar, High Energy Physics Group, ICN, UNAM, Mexico City, January 2004;  
“ *Teoria de Cuerdas, Cromodinamica Cuantica y Trayectorias de Regge*”.
- ▷ Facultad de Ciencias, Benemerita Universidad de Puebla, Puebla, Mexico, December 2003;  
“*Teoria de Cuerdas y la Pendiente de Regge*”.
- ▷ Seminario Manuel Sandoval Vallarta , Instituto de Fisica, UNAM, Mexico City, November 2003;  
“*Teoria de Cuerdas y Cromodinámica Cuantica*”.
- ▷ Annual Meeting of the “Division de Gravitacion y Fisica Matematica”, UNAM, Mexico City, June 2003, plenary speaker;  
“ *Teoria de Cuerdas y QCD*”.
- ▷ International Cientific Meeting, Lima, Perú, January 2003, plenary speaker;  
“*Latest Developments in String Theory*”.
- ▷ Theory Seminar, Department of Physics, Brown University, 2002  
“*Non-conformal gauge theories and the deformed conifold*” .
- ▷ Departamental Colloquium, Universidad Autónoma de Puebla, Puebla, Mexico, June 2002  
“*Gauge /Gravity Duality and Glueball Masses*”.
- ▷ Theory Seminar, Institute of Physics and Mathematics, Universidad Michoacana de San Nicolás de Hidalgo, Morelia, Mexico, May 2002,  
“*Confinement and String Theory*”.
- ▷ SUSY 2001, Dubna, Russia, speaker,  
“*Glueball Masses for the Deformed Conifold theory*”.
- ▷ Departamental Colloquium, CINVESTAV, Mexico, March 20001,  
“*String Theory and Gauge/Gravity Duality* ”.
- ▷ Theory Seminar, CINVESTAV, Mexico, March 20001,  
“*Stacking Non-BPS Branes*”.
- ▷ Theory Seminar, CINVESTAV, Mexico, March 20001,  
“*Glueball Masses for the Deformed Conifold Theory*”.
- ▷ Theory Seminar, Abdus Salam ICTP, Trieste, Italy.  
“*Glueball Masses for the Deformed Conifold theory*”.



- ▷ Theory Seminar, Tel Aviv University, Israel, May 2000  
“*Wilson Loops in the Higgs phase of a Conifold theory*”.
- ▷ Theory Seminar, Abdus Salam ICTP, Oct. 1999  
“*Phenomenological Aspects of Symmetric Vacua in M-Theory*”.
- ▷ Theory Seminar, The University of Texas at Austin, Sept. 1998  
“*M-Theory Five-Brane and Exceptional Groups*”.
- ▷ Theory Seminar, University of California at Los Angeles, UCLA , March 1998  
“*Wrapping the M5 brane*”
- ▷ Series of Lectures, Instituto de Matemáticas y Ciencias Afines, Lima, Perú, Dec. 1997.  
“*Developments in String Theory*”  
1- Seiberg-Witten  
2- Gauge Theories and Branes  
3- M-theory
- ▷ Theory Seminar, University of California at Los Angeles, Oct 1996  
“*On String Duality and Large Volume Compactifications*”
- ▷ Brown Bag Seminar, Theory Group, University of Texas at Austin  
“*On the Dynamics of  $(SU(n))^k$  Gauge Theories with  $N = 1$  Supersymmetry*”,  
November 1995
- ▷ Workshop on Gauge Theory, String Theory and Quantum Gravity, Abdus Salam ICTP, Trieste, Italy, April 1995, speaker,  
“*On The Impossibility of Large Radius Compactification in Perturbative String Theories*”.
- ▷ Strings 95, Los Angeles, speaker, “*On the Impossibility of Large Radius Compactification in Realistic String Theory*”, March 1995

## OUTREACH

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Selected outreach activities after 2005.

- Dean’s Scholars, ”Holography, black holes and quantum information”, University of Texas at Austin, 2018
- International Physics Symposium, Instituto Tecnológico de Monterrey, Monterrey, Mexico, “Holography, quantum information and black holes”, March 2018
- Pizza seminar, University of Texas at Austin, “Holography, quantum information and black holes”, October 2017
- Women in Science Workshop, University of Colima, March 2017, “My research, my life and all that”
- University of Colima Science and Technology Workshop, Dec. 2016, “String Theory, black holes and holography”
- Talk for High School Students, “Black Holes, spacetime and other dimensions”, Colima Dec. 2016
- Public Lecture Series “Ciencia y Cafe”, talk at Starbucks, “Black Holes and other dimensions”, Colima Oct. 2016
- Science Workshop for Mexican High School Students, Dec. 2015, “Black Holes, Wormholes and the Secrets of Spacetime”

- Public Lecture Series “Ciencia y Cafe”, talk at Starbucks, “Black Holes and Emergent spacetime”, Colima Nov. 2015
- TV interview, channel 22, Colima, Nov. 2015
- Science Workshop for Mexican High School Students, Dec. 2014, “Holography and duality”
- Radio Interview, “What is String Theory”, Radio Universo, Oct. 2014
- Plenary Talk, “The Holographic Principle”, Semana de la Ciencia, Universidad de Colima, November 2013.
- Plenary Talk, “String Theory: The Universe and its Mysteries”, National Academy of Medicine, Lima, Perú, March 2012
- Talk for High School Science Teachers, “Navier-Stokes and Pollock”, Colima, Mexico, Nov 2011
- Talk for High School Students: “Einstein’s dream ”, Colima, Mexico, May 2011
- Interview: “String theory and the quark gluon plasma” October 2009, newspaper “ El Comentario”.
- Interview: “*Experimental* String Theory ” February 2008, newspaper “ La Reforma”.
- Talk for High School Students: “The Unification of Forces”, Sept 8 2007. Bach. # 14, Manzanillo, Colima.
- Talk for High School Teachers: ”On Science Outreach” , Oct. 2006. CETIS # 157 Cuauhtemoc, Colima.
- Workshop on Science Outreach: Panel discussion, Oct. 2006. University of Colima, Program of Humanities and Journalism.
- Interview: “Gender Discrimination in Science” , May 2006, newspaper ”El Comentario“.
- Videoconference: “String Theory, Our Universe and the Unification of Forces”, Oct 2006. University of Colima.
- Radio Interview : “2005 International Year of Physics”, Radio Universo, Colima.
- Talk for high school students: “Introduction to Special Relativity”, March 2006, Colima.
- General Public talk : “String Theory, Einstein’s Dream and Our World, November 2005. University of Colima.
- Radio Interview, Radio Universo, April 2005.

## COMMITTEES

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### At UT-Austin

- Chair of the Outreach Committee, 2018-present
- Member of the Diversity and Outreach Committee, 2017-2018

### In Mexico:

- Member of several Departmental level committees at University of Colima: Hiring Committee, Physics Curriculum Modification Committee, Students Follow-up Committee, Theoretical Physics Academy Council, etc.

- Faculty Promotions Committee.  
Member of the Univeristy wide Faculty Promotions Committee, 2008-2009.
- Member of CONACYT national committee for evaluating and modifying the grant reviewing process in Mexican universities (area of Natural Sciences) 2010-2012

## PUBLICATIONS

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1. Elena Caceres, Josiah Couch, Stephan Eccles, Willy Fischler, “Holographic Purification Complexity,” **arXiv:1811.10650**
2. Elena Caceres, Ming-Lei Xiao, “Complexity-action of singular subregions,” **arXiv:1809.09356** *Submitted to JHEP*
3. Elena Caceres, Anderson Seigo Misobuchi, Ming-Lei Xiao, ”Rotating traversable wormholes in AdS,” **JHEP 1812 (2018) 005**
4. E. Caceres, R. Mohan and P. H. Nguyen, “On holographic entanglement entropy of Horndeski black holes,” **JHEP 1710 (2017) 145**
5. T. Andrade, E. Caceres and C. Keeler, “Boundary Causality vs Hyperbolicity for Spherical Black Holes in Gauss-Bonnet”,  
**Class.Quant.Grav. 34 (2017) no.13**
6. E. Caceres, P. H. Nguyen and J. F. Pedraza, “Holographic entanglement chemistry”,  
**Phys.Rev. D95 (2017) no.10**
7. E. Caceres, M. Sanchez and J. Virrueta, “Holographic Entanglement Entropy in Time Dependent Gauss-Bonnet Gravity”, **JHEP (2017) 2017: 127.**
8. E. Caceres, P. H. Nguyen and J. F. Pedraza, “Holographic entanglement entropy and the extended phase structure of STU black holes”, arXiv:1507.06069 [hep-th], **JHEP 1509, 184 (2015)**
9. E. Caceres, A. Kundu, J. F. Pedraza and D. L. Yang, “Weak Field Collapse in AdS: Introducing a Charge Density”, arXiv:1411.1744 [hep-th], **JHEP 1506, 111 (2015)**
10. E. Caceres, N. T. Macpherson and C. Nez, “New Type IIB Backgrounds and Aspects of Their Field Theory Duals,” arXiv:1402.3294 [hep-th], **JHEP 1408, 107 (2014)**
11. E. Caceres, A. Kundu, J. F. Pedraza and W. Tangarife, “Strong Subadditivity, Null Energy Condition and Charged Black Holes,” arXiv:1304.3398 [hep-th], **JHEP 01 (2014) 084**
12. E. Caceres, A. Kundu and D. -L. Yang, “Jet Quenching and Holographic Thermalization with a Chemical Potential,” arXiv:1212.5728 [hep-th], **JHEP 03 (2014) 073**
13. E. Caceres and S. Young, “On the Stability of Non-Extremal Conifold Backgrounds with Sources,” arXiv:1205.2397 [hep-th], **Phys.Rev. D87 (2013) 4, 046006**
14. E. Caceres and A. Kundu, “Holographic Thermalization with Chemical Potential,” arXiv:1205.2354 [hep-th], **JHEP 1209 (2012) 055**
15. S. Bennett, E. Cáceres, C. Nunez, D. Schofield, S. Young, “The Non-SUSY Baryonic Branch: Soft Supersymmetry Breaking of N=1 Gauge Theories,”  
**JHEP 1205 (2012) 031**

16. E. Cáceres, C. Nuñez, L. Pando-Zayas, “Heating up the baryonic branch with U duality: a unified picture of conifold blackholes”  
**JHEP 1103:054,(2011)**
17. E. Cáceres, M. Mahato, L. Pando-Zayas, V. Rodgers, ” Toward NS5 Branes on the Resolved Cone over  $Y_{pq}$  “  
**Phys.Rev.D83:066008, (2011).**
18. E. Cáceres, M. Chernicoff, A. Güijosa, J.F. Pedraza, ”Quantum Fluctuations and the Unruh Effect in Strongly- Coupled Conformal Field Theories“  
**JHEP 1006:078 (2010).**
19. E. Cáceres, R. Flauger, M. Ihl and T. Wrase, “New Supergravity Backgrounds Dual to N=1 SQCD-like Theories with  $N_f = 2N_c$ ”  
**JHEP 0803, 020 (2008)**
20. E. Cáceres, M. Natsuume and T. Okamura, “Screening length in plasma winds,”  
**JHEP 0610:011 (2006)**
21. E. Cáceres and A. Güijosa, “On drag forces and jet quenching in strongly coupled plasmas,”  
**JHEP 0612:068 (2006).**
22. E. Cáceres and A. Guijosa, “Drag force in charged N = 4 SYM plasma,”  
**JHEP 0611:077 (2006)**
23. E.Cáceres, C. Nuñez:  
“Glueballs of Super Yang Mills from Wrapped Branes”  
**JHEP 0509: 027 (2005)**
24. X. Amador, E. Cáceres:  
”Spin Two Glueball Mass and Glueball Regge Trajectory from Supergravity”  
**JHEP 0411, 022 (2004)**
25. X. Amador, E. Cáceres, H. García-Compeán, A. Guijosa:  
“Conifold Holography”  
**JHEP 06-2003-049**
26. G.L Alberghi, E. Cáceres, K. Goldstein, D. A. Lowe:  
“Stacking Non-BPS Branes”  
**Phys. Lett. B520:360-366,2001**
27. E. Cáceres, R. Hernández :  
“Glueball Masses for the Deformed Conifold Theory”  
**Phys.Lett.B504:64-70,2001**
28. E. Cáceres, R. Hernández :  
“Wilson Loops in the Higgs Phase of Large N Field Theories on the Conifold”,  
**JHEP 0006:027,2000**
29. E. Cáceres, P. Pasanen :  
“M-Theory Five-Brane Wrapped on Curves for Exceptional Groups”  
**Nucl.Phys.B543:572-591,1999**
30. E. Cáceres, V. Kaplunovsky and M. Mandelberg:  
“Large-Volume String Compactifications, Revisited”  
**Nucl.Phys.B493:73-100,1997**