

1.- Datos Personales

Nombre Completo ENRIQUE CERDA VILLABLANCA	
Institución Departamento de Física, Facultad de Ciencias, Universidad de Santiago de Chile	
Cargo Actual Profesor Titular, Académico Jornada Completa	
Dirección laboral Av. Ecuador 3493, Estación Central	Ciudad Santiago
Domicilio particular Nueva de Lyon 170, Depto. 1404, Providencia	Ciudad Santiago
Fonos de contacto 56-2-7181255	E-Mail enrique.cerda@usach.cl

2.- Grados Académicos

- **Doctor en Ciencias Mención Física (1996), Universidad de Chile (CHILE)**
- **Licenciado en Ciencias Mención Física (1992), Universidad de Chile (CHILE)**

3.- Experiencia

- Profesor Titular (2013– presente), **Departamento de Física, Facultad de Ciencias, Universidad de Santiago de Chile, Chile**
- Profesor Asociado (2004– 2012), **Departamento de Física, Facultad de Ciencias, Universidad de Santiago de Chile, Chile**
- Profesor Asistente (1998 – 2004), **Departamento de Física, Facultad de Ciencias, Universidad de Santiago de Chile, Chile**
- Profesor Visitante (2001 – 2003), **Department of Applied Mathematics and Theoretical Physics (DAMPT), University of Cambridge, Inglaterra**
- Postdoc (1997 – 1998), **Massachusetts Institute of Technology (MIT), EEUU**

4.- Publicaciones

1. E. Couturier, J. Dumais, **E. Cerda**, and E. Katifori, "Folding of an Opened Spherical Shape", *Soft Matter*, **9**, 8359 (2013).
2. V. Romero, B. Roman, E Hamm, and **E. Cerda**, "Spiral Tearing of Thin Films", *Soft Matter*, **9**, 8282 (2013).
3. R. D. Schroll, M. Adda-Bedia, **E. Cerda**, J. Huang, N. Menon, T. P. Russell, K. B. Toga, D. Vella, and B. Davidovitch, "Capillary Deformations of Bendable Films", *Phys. Rev. Lett.*, **111**, 014301 (2013).

4. J. Briones, P. Toro, A. Encinas, L. Caballero, J. C. Denardin, F. Melo, **E. Cerda**, S. Robert, D. Lacour, and F. Montaigne, "Large area patterned magnetic films by depositing cobalt layers on nano-wrinkled polydimethylsiloxane templates", *App. Phys. Lett.*, **103**, 072404 (2013).
5. B. Davidovitch, R. D. Schroll, and **E. Cerda**, "Nonperturbative model for wrinkling in highly bendable sheets ", *Phys. Rev. E*, **85**, 066115 (2012).
6. B. Davidovitch, R. D. Schroll, D. Vella, M. Adda-Bedia, and **E. Cerda**, "Prototypical model for tensional wrinkling in thin sheets", *PNAS*, **108**, 18227 (2011).
7. P. Zapata, L. Tamayo, M. Paez, **E. Cerda**, I. Azocar, and F. Rabagliati, "Nanocomposites based on polyethylene and nanosilver particles produced by metallocenic "in situ" polymerization: synthesis, characterization, and antimicrobial behavior", *European Polymer Journal*, **Vol. 47**, 1541 (2011).
8. N. Rojas, M. Argentina, **E. Cerda**, and E. Tirapegui, "Faraday patterns in lubricated thin films", *European Physical Journal*, **62**, 25, (2011).
9. D. Vella, M Adda-Bedia, and **E. Cerda**, "Capillary wrinkling of elastic membranes", *Soft Matter*, **6**, 5778, (2010).
10. N. O. Rojas, M. Argentina, E. Cerda, and E. Tirapegui, "Inertial Lubrication Theory", *Phys. Rev. Lett.*, **104**, 187801 (2010).
11. Eleni Katifori, Silas Alben, **E. Cerda**, David R. Nelson, and Jacques Dumais, "Foldable structures and the natural design of pollen grains", *PNAS*, **107**, 7635 (2010).
12. Luka Pocivavsek, Brian Leahy, Niels Holten-Andersen, Binhua Lin, Ka Yee C. Lee and **E. Cerda**, "Geometric tools for complex interfaces: from lung surfactant to the mussel byssus", *Soft Matter*, **5**, 1963 (2009).
13. N.O. Rojas, M. Argentina, **E. Cerda**, and E. Tirapegui, "Nonlinear Faraday waves at low Reynolds numbers", *J. of Molecular Liquids*, **147**, 166 (2009)
14. E. Hamm, P. Reis, M. LeBlanc, B. Roman, **E. Cerda**, "Tearing as a test for mechanical characterization of thin adhesive films", *Nat. Materials*, **7**, 386 (2008).
15. Luka Pocivavsek, Robert Dellsy, Andrew Kern, Sebastián Johnson, Binhua Lin, Ka Yee C. Lee, and **E. Cerda**, "Stress and Fold Localization in Thin Elastic Membranes", *Science*, **320**, 912 (2008).
16. Victor Romero, **E. Cerda**, T A Witten and Tao Liang, "Force Focusing in Confined Fibres and Sheets", *Journal of Physics D: Applied Physics*, **41**, Art. No 132003 (2008).
17. Victor Romero, T A Witten, and **E. Cerda**, "Multiple Coiling of an Elastic Sheet in a Tube", *Proceedings of the Royal Society A*, **464**, 2847 (2008).
18. J. Huang, M. Juskiewicz, W.H. de Jeu, **E. Cerda**, T. Emrick, N. Menon, and T.P. Russell, "Capillary Wrinkling of Floating Thin Polymer Films", *Science*, **317**, 650 (2007).
19. B. Toledo, **E. Cerda**, J. Rogan, V. Muñoz, C. Tenreiro, R. Zarama, JA Valdivia, "Universal and nonuniversal features in a model of city traffic", *Phys. Rev. E*, **75**, 026108 (2007).
20. **E. Cerda**, "Mechanics of Scars", *J. of Biomechanics*, **38**, 1598 (2005).

21. **E. Cerda** and L. Mahadevan, "Confined developable elastic surfaces: cylinders, cones and the Elastica", *Proceedings of the Royal Society A*, **461**, 671 (2005).
22. **E. Cerda**, L. Mahadevan and J.M. Pasini, "The Elements of Draping", *PNAS*, **Vol. 101**, 1806 (2004).
23. **E. Cerda** and L. Mahadevan, "Geometry and Physics of Wrinkling", *Phys. Rev. Lett.*, **Vol. 90**, 74302 (2003).
24. **E. Cerda**, K. Ravi-Chandar and L. Mahadevan, "Wrinkling of Stretched Elastic Sheets", *Nature*, **Vol. 419**, 579 (2002)
25. **E. Cerda**, R. Rojas and E. Tirapegui, "Asymptotics Description of a Viscous Fluid Layer", *J. Statistical Physics*, **Vol. 101**, 553 (2000)
26. **E. Cerda**, S. Chaieb, F. Melo and L. Mahadevan, "Conical Dislocations in Crumpling", *Nature*, **Vol. 401**, 46 (1999).
27. **E. Cerda** and E. Tirapegui, "Faraday's Instability in Viscous Fluid", *J. Fluid Mechanics*, **Vol. 368**, 195 (1998).
28. **E. Cerda** and L. Mahadevan, "Conical Surfaces and Crescent Singularities in Crumpled Sheets", *Phys. Rev. Lett.*, **Vol. 80**, 2358 (1998).
29. **E. Cerda**, F. Melo and S. Rica, "Model for Subharmonic Waves in Granular Materials", *Phys. Rev. Lett.*, **Vol. 79**, 4570 (1997).
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31. H. Calisto, **E. Cerda** and E. Tirapegui, "Effective Potential and Weak Noise Transitions", *Journal of Statistical Physics*, **Vol. 82**, 1015 (1996).
32. C. Nore, M. E. Brachet, **E. Cerda** and E. Tirapegui, "Scattering of First Sound by Superfluid Vortices", *Phys. Rev. Lett.*, **Vol. 72**, 2593 (1994).
33. **E. Cerda** and F. Lund, "Interaction of Surface Waves with Vorticity in Shallow Water", *Phys. Rev. Lett.*, **Vol. 70**, 3896 (1993).
34. H. Calisto, **E. Cerda** and E. Tirapegui, "Weak Noise Expansions through Functional Integrals for Colored Noise", *Journal of Statistical Physics*, **Vol. 71**, 513 (1993).
35. H. Calisto, **E. Cerda** and E. Tirapegui, "Comment on Noise and Bifurcations", *Journal of Statistical Physics*, **Vol. 69**, 1115 (1992).