

# Eder Miguel

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## RESEARCH EXPERIENCE

<b>Postdoctoral Researcher</b> IST Austria.	<b>02/2015 - Present</b>
<b>Researcher</b> Rey Juan Carlos University, Madrid, Spain.	<b>09/2010 - 01/2015</b>
<b>Visiting Research Assistant</b> USC Institute for Creative Technologies, Los Angeles, USA.	<b>06/2013-08/2013</b>
<b>Research Intern</b> Walt Disney Animation Studios, Los Angeles, USA.	<b>08/2012-10/2012</b>
<b>Research Intern</b> Disney Research Zurich, Zurich, Switzerland.	<b>10/2010-12/2010</b>
<b>Junior Researcher</b> Robotiker-Tecnalia, Zamudio, Spain.	<b>05/2008-09/2008</b>
<b>Software Engineer</b> Emerging Advanced Technologies, Sondika, Spain.	<b>10/2007-04/2008</b>

## EDUCATION

<b>Ph.D. in Computer Science</b> Rey Juan Carlos University, Madrid, Spain. Thesis: Measurement-Based Model Estimation for Deformable Objects. Advisor: Prof. Miguel A. Otaduy	<b>09/2010 - 11/2014</b>
<b>M.Sc. in Computer Graphics</b> Rey Juan Carlos University, Madrid, Spain. Thesis: Methods for Handling Contact between Rigid and Deformable Objects. Advisor: Prof. Miguel A. Otaduy	<b>09/2008 - 06/2010</b>
<b>M.Sc. in Information and Communication Technologies</b> University of the Basque Country, Bilbao, Spain. Thesis: Modeling of IDSs using Petri Nets. Advisor: Prof. Armando Ferro	<b>01/2008 - 01/2009</b>

## AWARDS

**La Caixa Fellowship** for Master studies in Spain, awarded 08/2008

**Robotiker-Tecnalia Scholarship** for undergraduate students, awarded 09/2006.  
**University of the Basque Country Collaborator Scholarship**, awarded 09/2005.  
**Basque Country Educational Department Scholarship**, awarded 09/2002.

## PUBLICATIONS - JOURNALS

- 1. Modeling and Estimation of Energy-Based Hyperelastic Objects.**  
Eder Miguel, David Miraut and Miguel A. Otaduy.  
In *Computer Graphics Forum (Eurographics 2016)*, Lisbon, May 2016.
- 2. Modeling and Estimation of Internal Friction in Cloth.**  
Eder Miguel, Rasmus Tamstorf, Derek Bradley, Sara C. Schvartzman, Bernhard Thomaszewski, Bernd Bickel, Wojciech Matusik, Steve Marschner and Miguel A. Otaduy.  
In *ACM Transactions on Graphics (Proc. Siggraph Asia 2013)*, vol. 32, no. 6, Nov. 2013.
- 3. Data-Driven Estimation of Cloth Simulation Models.**  
Eder Miguel, Derek Bradley, Bernhard Thomaszewski, Bernd Bickel, Wojciech Matusik, Miguel A. Otaduy and Steve Marschner.  
In *Computer Graphics Forum (Eurographics 2012)*, vol. 31, no. 2, May 2012.

## PUBLICATIONS - PEER-REVIEWED CONFERENCES

- 1. Characterization of Nonlinear Finger Pad Mechanics for Tactile Rendering.**  
Eder Miguel, Maria Laura D'Angelo, Ferdinando Cannella, Matteo Bianchi, Mariacarla Memeo, Antonio Bicchi, Darwin G. Caldwell, Miguel A. Otaduy.  
In *Proc. of World Haptics Conference*, 2015.
- 2. Towards Cloth-Manipulating Characters.**  
Eder Miguel, Andrew Feng and Ari Shapiro.  
In *CASA - Computer Animation and Social Agents*, Houston (USA), May 2014.
- 3. Efficient Simulation of Contact between Rigid and Deformable Objects.**  
Eder Miguel and Miguel A. Otaduy.  
In *ECCOMAS - Multibody Dynamics*, Brussels (Belgium), July 2012.
- 4. Modeling and Simulation of a Human Shoulder for Interactive Medical Applications.**  
Miguel A. Otaduy, Carlos Garre, Jorge Gascón, Eder Miguel, Álvaro G. Pérez and Javier S. Zurdo.  
In *Spanish Conference on Computer Graphics*, Valencia (Spain), Sept. 2010.
- 5. Modification of AODV in NS-2 for Maximization of Route Stability in MANETs.**  
Eder Miguel, Jose Luis Jodra and Iñigo Arizaga.  
In *Spanish Conference Information and Communication Technologies*, Malaga (Spain), Sept. 2007.

## INVITED TALKS

**Modeling and Estimation of Internal Friction in Cloth.**  
Invited Talk, Spanish Conference on Computer Graphics (CEIG 2014), Zaragoza, Spain, 2014.

**Data-Driven Parameter Estimation for Deformation Models.**  
Invited Talk, IST Austria, Klosterneuburg, Austria, 2014.

## PROFESSIONAL ACTIVITIES

### **Program Committee**

Eurographics Short Papers IPC 2015.  
Spanish Computer Graphics Conference 2015.

### **Reviewer**

SIGGRAPH 2015.

SIGGRAPH Asia 2015.  
Eurographics 2015, 2016.  
IEEE Transactions on Visualization and Computer Graphics.  
Pacific Graphics 2013.  
Haptics Symposium 2016.  
World Haptics Conference 2011.

**Secretary**

Madrid ACM SIGGRAPH Student Chapter, Madrid, Spain, 03/2011-03/2013.