Eder Miguel

Postdoctoral Fellow
Universidad Rey Juan Carlos
Tulipan SN
Mostoles, 28933
Spain
Email: eder.miguel@urjc.es
http://www.gmrv.es/~edermiguel/

RESEARCH EXPERIENCE

Postdoctoral Fellow   **02/2017 - Present**
Rey Juan Carlos University, Madrid, Spain.

Postdoctoral Researcher   **02/2015 - 02/2017**
IST Austria, Vienna, Austria.

Researcher   **09/2010 - 01/2015**
Rey Juan Carlos University, Madrid, Spain.

Visiting Research Assistant   **06/2013-08/2013**
USC Institute for Creative Technologies, Los Angeles, USA.

Research Intern   **08/2012-10/2012**
Walt Disney Animation Studios, Los Angeles, USA.

Research Intern   **10/2010-12/2010**
Disney Research Zurich, Zurich, Switzerland.

Junior Researcher   **05/2008-09/2008**
Robotiker-Tecnalia, Zamudio, Spain.

Software Engineer   **10/2007-04/2008**
Emerging Advanced Technologies, Sondika, Spain.

EDUCATION

Ph.D. in Computer Science   **09/2010 - 11/2014**
Rey Juan Carlos University, Madrid, Spain.
    Thesis: Measurement-Based Model Estimation for Deformable Objects.
    Advisor: Prof. Miguel A. Otaduy

M.Sc. in Computer Graphics   **09/2008 - 06/2010**
Rey Juan Carlos University, Madrid, Spain.
    Thesis: Methods for Handling Contact between Rigid and Deformable Objects.
    Advisor: Prof. Miguel A. Otaduy

M.Sc. in Information and Communication Technologies   **01/2008 - 01/2009**
University of the Basque Country, Bilbao, Spain.
    Thesis: Modeling of IDSs using Petri Nets.
    Advisor: Prof. Armando Ferro

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. **Computational Design of Stable Planar-Rod Structures**
   Eder Miguel, Mathias Lepoutre and Bernd Bickel.
   In *ACM Transactions on Graphics*, Vol. 35(4) (SIGGRAPH 2016, Anaheim, USA).

2. **Modeling and Estimation of Energy-Based Hyperelastic Objects.**
   Eder Miguel, David Miraut and Miguel A. Otaduy.
   In *Computer Graphics Forum (Proc. Eurographics 2016)*, Volume 35, Number 2, Lisbon, May 2016.

3. **Modeling and Estimation of Intenal 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.

4. **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 DAngelo, 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, July, 2014.

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

PROFESSIONAL ACTIVITIES

Program Committee

GRAPP 2017.

Eurographics Short Papers IPC 2015.

Spanish Computer Graphics Conference 2015.

Reviewer

ACM Transactions on Graphics.

SIGGRAPH 2015.

SIGGRAPH Asia 2015, 2016.

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.