Manuel Gomez Rodriguez

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ACADEMIC
DEGREES

Stanford University, Stanford, CA USA.
Ph.D., Electrical Engineering, June 2013.
Thesis Committee: Andrew Ng, Bernhard Schölkopf, Jure Leskovec, Emmanuel Candes
and Christopher Potts.

M.S., Electrical Engineering, April 2009.

Carlos III University, Madrid, Spain.
B.S., Telecommunications Engineering (Summa Cum Laude), July 2006.

RESEARCH
INTERESTS

Machine learning and large-scale data mining, focusing on the analysis and modeling of
diffusion of information and influence over large real-world networks.

PROFESSIONAL
EXPERIENCE

MPI for Software Systems, Kaiserslautern, Germany.
Tenure-track faculty (W2).
Since November 2014.

MPI for Intelligent Systems, Tübingen, Germany.
Research Scientist.
Since September 2013.

MPI for Intelligent Systems, Tübingen, Germany.
Postdoctoral Fellow.
January 2013 to August 2013.

LinkedIn, Mountainview, CA, USA.
Intern.
June 2011 to September 2011.

MPI for Biological Cybernetics, Tübingen, Germany.
Intern.
June 2008 to September 2008.

Analog Devices, Limerick, Ireland.
Graduate Engineer.
July 2006 to June 2007.

ACADEMIC
HONORS

NIPS Outstanding Paper Award, 2013.
Pedro Barrie de la Maza Foundation Fellowship, 2010-2013.
ICML Student Travel Scholarship, 2011.
Best Research Paper Award Honorable Mention at ACM SIGKDD, 2010.
KDD Student Travel Award, 2010.
BCI Meeting Student Scholarship, 2010.
Caja Madrid Foundation Fellowship, 2007-2009.
Caixa Galicia Foundation Fellowship, 2007-2008 (Declined).
Spanish Ministry of Education FPI Fellowship, 2007-2010 (Declined).
Spanish Ministry of Education Undergraduate Fellowship, 2004-2006.

PUBLICATIONS

Theses:

[1] **M. Gomez Rodriguez**. Structure and Dynamics of Diffusion Networks. *Ph.D. Thesis, Department of Electrical Engineering, Stanford University*, June 2013.

Journals:

[2] **M. Gomez Rodriguez**, J. Leskovec, D. Balduzzi and B. Schölkopf. Uncovering the Structure and Temporal Dynamics of Information Propagation. *Network Science*, 2014.

[3] **M. Gomez Rodriguez**, J. Leskovec and A. Krause. Inferring networks of diffusion and influence. *ACM Transactions on Knowledge Discovery from Data (TKDD)*, Volume 5, Number 4, 2012.

[4] **M. Gomez Rodriguez**, J. Peters, J. Hill, B. Schölkopf, A. Gharabaghi and M. Grosse-Wentrup. Closing the sensorimotor loop: haptic feedback facilitates decoding of motor imagery. *Journal of Neural Engineering*, Volume 8, Number 3, 2011.

Conferences:

[5] M. Farajtabar, N. Du, **M. Gomez Rodriguez**, I. Valera, H. Zha, and L. Song. Shaping Social Activity by Incentivizing Users. *Advances in Neural Information Processing Systems (NIPS)*, 2014.

[6] H. Daneshmand, **M. Gomez-Rodriguez**, L. Song and B. Schölkopf. Estimating Diffusion Network Structures: Recovery Conditions, Sample Complexity & Soft-thresholding Algorithm. *Proceedings of the 31st International Conference on Machine Learning (ICML)*, 2014 (**Recommended for JMLR Fast Track**).

[7] **M. Gomez-Rodriguez**, K. Gummadi and B. Schölkopf. Quantifying Information Overload in Social Media and its Impact on Social Contagions. *Proceedings of the 8th International AAAI Conference on Weblogs and Social Media (ICWSM)*, 2014.

[8] N. Du, L. Song, **M. Gomez Rodriguez** and H. Zha. Scalable Influence Estimation in Continuous Time Diffusion Networks. *Advances in Neural Information Processing Systems (NIPS)*, 2013 (**Outstanding Paper Award**).

[9] **M. Gomez Rodriguez**, J. Leskovec and B. Schölkopf. Modeling Information Propagation with Survival Theory. *Proceedings of the 30th International Conference on Machine Learning (ICML)*, 2013.

[10] **M. Gomez Rodriguez**, J. Leskovec and B. Schölkopf. Structure and Dynamics of Information Pathways in Online Media. *Proceedings of the 6th International Conference on Web Search and Data Mining (WSDM)*, 2013.

[11] **M. Gomez Rodriguez** and M. Rogati. Bridging Offline and Online Social Graph Dynamics. *Proceedings of the 21st ACM International Conference on Information and Knowledge Management (CIKM)*, 2012.

[12] **M. Gomez Rodriguez** and B. Schölkopf. Influence Maximization in Continuous Time Diffusion Networks. *Proceedings of the 29th International Conference on Machine Learning (ICML)*, 2012.

[13] **M. Gomez Rodriguez** and B. Schölkopf. Submodular Inference of Diffusion Networks from Multiple Trees. *Proceedings of the 29th International Conference on Machine Learning (ICML)*, 2012.

[14] **M. Gomez Rodriguez**, D. Balduzzi and B. Schölkopf. Uncovering the Temporal Dynamics of Diffusion Networks. *Proceedings of the 28th International Conference on Machine Learning (ICML)*, 2011.

[15] **M. Gomez Rodriguez**, M. Grosse-Wentrup, J. Hill, A. Gharabaghi, B. Schölkopf

and J. Peters. Towards Brain-Robot Interfaces in Stroke Rehabilitation. *Proceedings of the 12th International Conference on Rehabilitation Robotics (ICORR)*, 2011.

[16] **M. Gomez Rodriguez**, J. Leskovec and A. Krause. Inferring Networks of Diffusion and Influence. *Proceedings of the 16th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)*, 2010 (**Best Research Paper Award Honorable Mention**).

[17] **M. Gomez Rodriguez**, J. Kober and B. Schölkopf. Denoising photographs using dark frames optimized by quadratic programming. *Proceedings of the 1st IEEE International Conference in Computational Photography (ICCP)*, 2009.

Workshops:

[18] **M. Gomez Rodriguez**, K. Gummadi and B. Schölkopf. Quantifying the Impact of Information Overload on Information Dissemination in Social Media. *Workshop on Information in Networks (WIN)*, 2013.

[19] **M. Gomez Rodriguez** and B. Schölkopf. Modeling Information Propagation with Survival Theory. *Advances in Neural Information Processing Systems: Workshop in Algorithmic and Statistical Approaches for Large Social Networks (NIPS)*, 2012.

[20] **M. Gomez Rodriguez**, J. Peters, J. Hill, B. Schölkopf, A. Gharabaghi and M. Grosse-Wentrup. Closing the Sensorimotor Loop: Haptic Feedback Facilitates Decoding of Arm Movement Imagery. *SMC Workshop in Shared-Control for BMI (SMC)*, 2010.

[21] **M. Gomez Rodriguez**, M. Grosse-Wentrup, J. Peters, G. Naros, J. Hill, B. Schölkopf and A. Gharabaghi. Epidural ECoG Online Decoding of Arm Movement Intention in Hemiparesis. *ICPR Workshop on Brain Decoding (ICPR)*, 2010.

[22] **M. Gomez Rodriguez**, J. Peters, J. Hill, A. Gharabaghi, B. Schlkopf and M. Grosse-Wentrup. BCI and robotics framework for stroke rehabilitation. *4th International BCI Meeting*, 2010.

INVITED TALKS	Princeton University, Princeton (NJ, USA), December 2014.
	UAM, Madrid (Spain), November 2014.
	Telefonica Research, Barcelona (Spain), November 2014.
	Microsoft Research Silicon Valley, Mountainview (CA, USA), July 2014.
	Tsinghua University, Beijing (China), June 2014.
	Yahoo Research, Barcelona (Spain), June 2014.
	USC/ISI, Los Angeles (CA, USA), May 2014.
	EPFL, Lausanne (Switzerland), March 2014.
	Max Planck Institute for Software Systems, Kaiserslautern (Germany), March 2014.
	Amazon, New York (NY, USA), February 2014.
	Harvard, Cambridge (MA, USA), February 2014.
	ETH, Zürich (Switzerland), February 2014.
	Google Headquarters, Mountainview (CA, USA), January 2013.
	Facebook Headquarters, Menlo Park (CA, USA), December 2012.
	Stanford University, Stanford (CA, USA), September 2012.
	Google Research, New York (NY, USA), January 2012.
	IBM Research, Yorktown Heights (NY, USA), January 2012.
	Carlos III University, Madrid (Spain), September 2010 and October 2011.
	LinkedIn, Mountainview (CA, USA), July 2011.
TEACHING	ETH/MPI Summer School on Learning Systems, 2014.
	Machine Learning Summer School (MLSS), 2013.
	Ph.D. Tutorials, MPI for Biological Cybernetics / Intelligent Systems, 2009-2013.

SCIENTIFIC
COMMUNITY
ACTIVITIES

Workshops:
Co-organizer workshop in "Diffusion Networks and Cascade Analytics", co-located with WSDM 2014, New York (NY, USA), February 2014.
Co-organizer workshop in "Networks – Processes and Causality", Menorca (Spain), September 2012.

Program committee member for: ICML 2015, ICWSM 2015, WWW 2015, SDM 2015, NIPS 2014, CIKM 2014, COSN 2014, KDD 2014, ICWSM 2014, ICML 2014, WWW 2014, WSDM 2014, NIPS 2013, ICML 2013, WSDM 2013, NIPS 2010, RSS 2010.

Reviewer for: PLOS One, Journal of Machine Learning Research (JMLR), Transaction on Knowledge Discovery from Data (TKDD), IEEE Transactions on Knowledge and Data Engineering (TKDE), IEEE Transactions on Signal Processing (TSP), IEEE Transactions on Network Science and Engineering (TNSE), Random Structures and Algorithms.

Volunteer: NIPS 2011, ICML 2011, KDD 2010.

TECHNICAL SKILLS **Operating Systems:** Windows, Linux, MacOSX.
Programming: Java, C, C++, Python, SQL, Pig, Hadoop, Matlab.
Networks: SNAP, Gephi, Pajek.
BCI: BrainVision, BCI2000, BCPy2000.

LANGUAGE SKILLS Spanish (native), English (fluent), German (intermediate).