

Bruno Gonçalves

Contact	Center for Complex Networks and Systems Research School of Informatics, Indiana University 919 E 10th St. Suite 322 Bloomington, IN, 47406 <i>www.bgoncalves.com</i> b.goncalves@neu.edu	
Professional Experience	<i>Associate Research Scientist</i> Northeastern University, Boston, MA	09/2011 – Present
	<i>Research Associate</i> Indiana University, Bloomington, IN	09/2008 – 08/2011
Research Interests	Epidemic Modeling Complex Networks Human Dynamics Agent-Based Modeling	
Honors and Awards	<i>Visiting Researcher</i> Universitat de les Illes Balears, Palma, Spain Fondazione ISI, Torino, Italy Fondazione ISI, Torino, Italy Fondazione ISI, Torino, Italy Los Alamos National Lab, Los Alamos, NM Los Alamos National Lab, Los Alamos, NM	Oct. 31 – Nov. 26, 2011 Jul. 9 – Jul. 31, 2011 Jul. 7 – Jul. 31, 2010 Jun. 20 – Jul. 31, 2009 Jun. 19 – Aug. 18, 2006 Jun. 6 – Sept. 4, 2005
	<i>Award</i> Group on Stat. and Non-Linear Physics - APS Honorable Mention on the 2010 Gallery of Nonlinear Images Competition.	Mar. 2010
	<i>Scholarship</i> Fundação para a Ciência e Tecnologia Application of statistical models to the prediction of florescence dates of the vineyards of the Douro region.	Jan. – Jun. 2002
Grants	<ol style="list-style-type: none">Computational Approaches to the Modeling of Infectious Disease Transmission Between and Within Animal and Human Populations A. Vespignani, B. Gonçalves, C. Scoglio National Agricultural Biosecurity Center – 2011 – \$100,000Designing an Effective HIV Prevention Plan for Botswana by Coupling an Information Network Model with a Meta-population Transmission Model S. Blower, B. Wagner, J. Okano, A. Vespignani, B. Gonçalves, R. Vardavas National Academies Keck Futures – 2008 Futures Grant on Complex Systems – \$75,000	
Education	PhD Physics/M.Sc. C. S. <i>Emory University</i> M.S. Physics <i>Universidade de Aveiro, Portugal</i> B.S. Physics <i>Universidade do Porto, Portugal</i>	2008 2004 2001

Service

- Organizer:
 1. “ChASM 2012: Computational Approaches to Social Modeling”
Workshop parallel to ICCS 2012, Omaha, NE
<http://www.chasm.ws>
 2. Focus Session: Complex and Co-evolving Networks
APS March Meeting 2012, Boston, MA
- Regular refereeing of papers submitted to:
 1. EPJ Data Science
 2. PLoS One
 3. Math. Biosciences
 4. Euro. Phys. J. B.
 5. Phys. Rev. E
 6. Physica A
- Participation in the Program Committee of:
 1. ECCS’12 Satellite Meeting - Data Driven Modeling of Contagion Processes
 2. Hypertext 2012
 3. World Wide Web 2012
 4. Social Network Systems 2010
 5. Web Search and Data Mining – Late Breaking Results 2008

Software Projects

1. **Truthy @ Indiana**
<http://truthy.indiana.edu>
Automated system to detect “organic” and “artificial” memes in micro blogging platforms.
2. **GLEaMViz simulator**
<http://www.gleamviz.org/simulator/>
Software system for the simulation of infectious diseases on a global scale.
3. **EPIdemic Cyberinfrastructure (EpiC)**
<http://epic.slis.indiana.edu/>
Computational infrastructure for epidemics research and education.

Book Chapters

1. **Social networks, contagion processes and the spreading of infectious diseases**
B. Gonçalves, N. Perra, A. Vespignani
In “Systems Biology: A Handbook” (Provisional Title)
Job Dekker, Marc Vidal and A.J. Marian Walthout (Editors)
Springer (Forthcoming, 2012)
2. **Abuse of social media and political manipulation**
B. Gonçalves, M. Conover, F. Menczer
In “The Death of The Internet”
Marcus Jakobsson (Editor)
Wiley (Forthcoming, 2012) ISBN: 9781118062418

Publications

PDF files and an up-to-date publication list: <http://www.bgoncalves.com/publications.html>

† “Equally contributing first author”

- 1. Activity driven modeling of dynamic networks**
N. Perra, **B. Gonçalves**, R. Pastor-Satorras, A. Vespignani
Under Review (2012) arXiv: **1203.5351**
- 2. Partisan Asymmetries in Online Political Activity**
M. Conover, B. Gonçalves, A. Flammini, F. Menczer
To Appear *EPJ Data Science* (2012) arXiv: **1205.1010**
- 3. Towards a characterization of behavior-disease models**
N. Perra, D. Balcan, **B. Gonçalves**, A. Vespignani
PLoS One **6**, e23084 (2011) arXiv: **1107.0997**
- 4. Modeling Users Activity on Twitter Networks: Validation of Dunbars Number**
B. Gonçalves, N. Perra, A. Vespignani
PLoS One **6**, e22656 (2011) arXiv: **1105.5170**
- 5. Mood Assortativity in Online Social Networking**
J. Bollen, **B. Gonçalves**, G. Ruan, H. Mao
ALIFE **17**, 237 (2011) arXiv: **1103.0784**
- 6. The GLEaMviz computational tool, a publicly available software to explore realistic epidemic spreading scenarios at the global scale**
W. Van Der Broeck, C. Gioannini, **B. Gonçalves**, M. Quaggiotto, V. Colizza, A. Vespignani
BMC Infectious Diseases **11**, 37 (2011)
- 7. Modeling the spatial spread of infectious diseases: the GLocal Epidemic and Mobility computational model**
D. Balcan, **B. Gonçalves**, H. Hu, V. Colizza, J. J. Ramasco, A. Vespignani
J. of Computational Science **1**, 132 (2010)
- 8. Comparing large-scale computational approaches to epidemic modeling: Agent based versus structured metapopulation models**
M. Ajelli, **B. Gonçalves** †, D. Balcan, V. Colizza, H. Hu, J. J. Ramasco, S. Merler, A. Vespignani
BMC Infectious Diseases **10**, 190 (2010)
- 9. Modeling vaccination campaigns and the Fall/Winter 2009 activity of the new A(H1N1) influenza in the Northern Hemisphere**
D. Balcan, V. Colizza, A. C. Singer, C. Chouaid, H. Hu, **B. Gonçalves**, P. Bajardi, C. Poletto, J. J. Ramasco, N. Perra, M. Tizzoni, D. Paolotti, W. Van den Broeck, A. J. Valleron, A. Vespignani.
PLoS Currents: Influenza **Dec 4**, RRN1133 (2009)
- 10. Multiscale mobility networks and the spatial spreading of infectious diseases.**
D. Balcan, V. Colizza, **B. Gonçalves**, H. Hu, J. J. Ramasco, A. Vespignani
Proc. Natl. Acad. Sci. **106**, 21484-21489 (2009), arXiv: **0907.3304**



11. **Estimate of Novel Influenza A/H1N1 cases in Mexico at the early stage of the pandemic with a spatially structured epidemic model**
V. Colizza, A. Vespignani, N. Perra, C. Poletto, **B. Gonçalves**, H. Hu, D. Balcan, D. Paolotti, W. Van den Broeck, M. Tizzoni, P. Bajardi, J.J. Ramasco
PLoS Currents: Influenza **Nov 11**, RRRN1129 (2009)
12. **Seasonal transmission potential and activity peaks of the new influenza A(H1N1): a Monte Carlo likelihood analysis based on human mobility**
D. Balcan, H. Hu, **B. Gonçalves**[†], P. Bajardi, C. Poletto, J. J. Ramasco, D. Paolotti, N. Perra, M. Tizzoni, W. Van den Broeck, V. Colizza, A. Vespignani
BMC Medicine **7**, 45 (2009), arXiv: **0909.2417**
13. **Modeling the critical care demand and antibiotics resources needed during the Fall 2009 wave of influenza A(H1N1) pandemic.**
P. Bajardi, C. Poletto, D. Balcan, H. Hu, **B. Gonçalves**, J. J. Ramasco, D. Paolotti, N. Perra, M. Tizzoni, W. Van den Broeck, V. Colizza, A. Vespignani
Emerging Health Threats Journal **2** e11 (2009)
14. **The Peculiar Phase Structure of Random Graph Bisection**
A. G. Percus, G. Istrate, **B. Gonçalves**, R. Z. Sumi, S. Boettcher
J. Math. Phys. **49**, 125219 (2008), arXiv:**0808.1549**
15. **Anomalous Diffusion on the Hanoi Networks**
S. Boettcher, **B. Gonçalves**
Euro Phys. Lett. **84**, 30002 (2008), arXiv:cond-mat/**0802.2757**
16. **Geometry and Dynamics for Hierarchical Regular Networks**
S. Boettcher, **B. Gonçalves**, J. Azaret
J. Phys. A: Math. Theor. **41**, 335003 (2008), arXiv: **0805.3013**
17. **Hierarchical, Regular Small-World Networks**
S. Boettcher, **B. Gonçalves**, H. Guclu
J. Phys. A: Math. Theor. **41**, 252001 (2008), arXiv:cond-mat/**0712.1259**
18. **Human Dynamics Revealed Through Web Analytics**
B. Gonçalves, J. J. Ramasco
Phys. Rev. E **78**, 026123 (2008), arXiv:cs.HC/**0803.4108**
19. **Hysteretical Optimization In Spin Glasses**
B. Gonçalves, S. Boettcher
J. Stat. Mech. P01003 (2008), arXiv:cond-mat/**0710.2138**
20. **Magnetic Reversal Time in Open Long Range Systems**
F. Borgonovi, G. L. Celardo, **B. Gonçalves**, L. Spadafora
Phys. Rev. E **77**, 061119 (2008), arXiv:cond-mat/**0710.3935**
21. **Transport on Weighted Networks: When Correlations are Independent of Degree**
J. Ramasco, **B. Gonçalves**
Phys. Rev. E **76**, 066106 (2007), arXiv:cond-mat/**0609776**



22. **Ensemble Inequivalence in Random Graphs**
J. Barré, **B. Gonçalves**
Physica A **386**, 212 (2007), arXiv:cond-mat/**0705.2385**
23. **Monte Carlo Study of the Elastic Interaction in Heteroepitaxial Growth**
B. Gonçalves, J.F.F. Mendes
Phys. Rev. E **65**, 061602 (2002), arXiv:cond-mat/**0204253**

**Peer-Reviewed
Proceedings**

1. **Dynamical Classes of Collective Attention in Twitter**
J. Lehmann, **B. Gonçalves**, J. J. Ramasco, C. Cattuto
WWW, 251 (2012) arXiv: **1111.1896**
2. **Predicting the Political Alignment of Twitter Users**
M. Conover, **B. Gonçalves**, J. Ratkiewicz, A. Flammini, F. Menczer
Third IEEE International Conference on Social Computing, 192 (2011)
3. **Detecting and Tracking Political Abuse in Social Media**
J. Ratkiewicz, M. Conover, M. Meiss, **B. Gonçalves**, A. Flammini, F. Menczer
Fifth International AAAI Conference on Weblogs and Social Media, 297 (2011)
4. **Political Polarization on Twitter**
M. Conover, J. Ratkiewicz, J. M. Francisco, **B. Gonçalves**, A. Flammini, F. Menczer
Fifth International AAAI Conference on Weblogs and Social Media, 89 (2011)
5. **Truthy: Mapping the Spread of Astroturf in Microblog Streams**
J. Ratkiewicz, M. Conover, M. Meiss, **B. Gonçalves**, S. Patil, A. Flammini, F. Menczer
WWW, 249 (2011), arXiv:**1011.3768**
6. **Modeling Traffic on the Web Graph**
M. Meiss, **B. Gonçalves**, J. J. Ramasco, A. Flammini, F. Menczer
7th Workshop on Algorithms and Models for the Web Graph, LNCS 6516, 50 (2010)
7. **Agents, Bookmarks and Clicks: A topical model of Web traffic**
M. Meiss, **B. Gonçalves**, J. J. Ramasco, A. Flammini, F. Menczer
Proceedings of the 21th ACM conference on Hypertext and hypermedia, 229 (2010), arXiv:**1003.5327**
8. **What's in a Session: Tracking Individual Behavior on the Web**
M. Meiss, J. Duncan, **B. Gonçalves**, J. J. Ramasco, F. Menczer
Proceedings of the 20th ACM conference on Hypertext and hypermedia 173 (2009), arXiv:**1003.5325**
9. **Remembering what we like: Toward an agent-based model of Web traffic**
B. Gonçalves, M. R. Meiss, J. J. Ramasco, A. Flammini, F. Menczer
WSDM 2009 Late Breaking Results (2009), arXiv:**0901.3839**
10. **Towards the characterization of individual users through Web analytics**
B. Gonçalves, J. Ramasco
Complex Sciences 2247 (2009), arXiv:cond-mat/**0901.0498**

Media Coverage

1. **US conservatives gain upper hand in Twitter politics**
New Scientist — May 9, 2012
<http://www.newscientist.com/blogs/onepercent/2012/05/us-conservatives-gain-upper-ha.html>
2. **Hermes Dirty Little Trick**
Science 2.0 — Mar 10, 2012
http://www.science20.com/room_212/%E2%80%A6hermes%E2%80%99_dirty_little_trick-87863
3. **Technology is Destroying the Quality of Human Interaction**
The Bottom Line — Jan 24, 2012
<http://thebottomline.as.ucsb.edu/2012/01/technology-is-destroying-the-quality-of-human-interaction>
4. **No Matter What Twitter Says, You've Got No More Than 150 Friends**
Motherboard — Jan 20, 2012
<http://motherboard.vice.com/2012/1/20/no-matter-what-twitter-says-you-ve-got-no-more-than-150-friends>
5. **Decoding Our Chatter**
Wall Street Journal — Oct 1, 2011
<http://online.wsj.com/article/SB10001424052970204138204576598942105167646.html>
6. **Social Scientists Wade Into the Tweet Stream**
Science News & Analysis — Sept 30, 2011
<http://www.sciencemag.org/content/333/6051/1814.full>
7. **Redes sociales, ¿para hacer amigos?**
El Mañana — Jun 30, 2011
<http://www.elmanana.com.mx/notas.asp?id=242833>
8. **Social networking 'utopia' isn't coming**
CNN — Jun 27, 2011
<http://www.cnn.com/2011/TECH/social.media/06/27/limits.social.networking.taylor/>
9. **Dunbar's number rules the Twitterverse**
CNN — Jun 7, 2011
<http://www.abc.net.au/science/articles/2011/06/07/3236451.htm?site=science&topic=tech>
10. **Sur les réseaux sociaux, difficile d'avoir plus de 200 amis**
Le Monde — Jun 4, 2011
http://www.lemonde.fr/week-end/article/2011/06/04/sur-les-reseaux-sociaux-difficile-d-avoir-plus-de-200-amis_1530170_1477893.html
11. **La taille du cerveau limite le nombre d'amis sur les réseaux sociaux**
Sud Ouest — Jun 1, 2011
<http://www.sudouest.fr/2011/06/01/la-taille-du-cerveau-limite-le-nombre-d-amis-sur-les-reseaux-sociaux-414644-4725.php>
12. **It's Science: You Can Only Really Follow 150 People on Twitter**
Time Magazine — Jun 1, 2011
<http://techland.time.com/2011/06/01/its-science-you-can-only-really-follow-150-people-on-twitter/>
13. **Human brain limits Twitter friends**
MSNBC — Jun 1, 2011
http://cosmiclog.msnbc.msn.com/_news/2011/06/01/6763994-human-brain-limits-twitter-friends
14. **Las redes sociales y la amistad**
La Capital — Jun 1, 2011
http://www.lacapital.com.ar/canales/tecno/contenidos/2011/06/01/Noticia_0001.html
15. **Online relationships mirror real life**
CorpComms — May 31, 2011
<http://www.corpcommsmagazine.co.uk/news/1476-online-relationships-mirror-real-life>

16. **Even With Social Networking, Do Our Brains Limit Our Number Of Friends?**
Psychology Today — May 31, 2011
<http://www.psychologytoday.com/blog/adventures-in-old-age/201105/even-social-networking-do-our-brains-limit-our-number-friends>
17. **Human Brain Places Limit On Twitter Friends**
Slashdot — May 31, 2011
<http://science.slashdot.org/story/11/05/31/0159228/Human-Brain-Places-Limit-On-Twitter-Friends>
18. **Study: Friends Hard to Keep Up with on Twitter, Facebook**
PCWorld — May 31, 2011
http://www.pcworld.com/article/228980/study_friends_hard_to_keep_up_with_on_twitter_facebook.html
19. **El cerebro humano solo puede reconocer hasta 150 amigos**
El Comercio — May 30, 2011
<http://elcomercio.pe/tecnologia/766014/noticia-cerebro-humano-solo-puede-reconocer-hasta-150-amigos>
20. **Human Brain Limits Twitter Friends To 150**
MIT Technology Review — May 30, 2011
<http://www.technologyreview.com/blog/arxiv/26824/>
21. **You Want to be Happier? Use Twitter**
BNet — Mar. 30, 2011
<http://www.bnet.com/blog/business-research/you-want-to-be-happier-use-twitter/1182>
22. **Twitter Users Congregate Based on Mood, Study Says**
NYTimes Bits — Mar 16, 2011
<http://bits.blogs.nytimes.com/2011/03/16/twitter-users-congregate-based-on-mood-study-says/>
23. **Computational Tools Can Facilitate Analysis of Infectious Disease Outbreaks**
Infection Control Today — Feb. 7, 2011
<http://www.infectioncontroltoday.com/news/2011/02/computational-tools-can-facilitate-analysis-of-infectious-disease-outbreaks.aspx>
24. **Beware Those Grassroots Tweets, They Might Be Astroturf**
Read Write Web — Nov. 2, 2010
http://www.readriteweb.com/archives/beware_those_grassroots_tweets_they_might_be_astro.php
25. **Follow the Truthy Tweets to Find Twitters Political Spammers**
Discover Magazine — Nov. 2, 2010
<http://blogs.discovermagazine.com/80beats/2010/11/02/follow-the-%E2%80%9Ctruthy%E2%80%9D-tweets-to-find-twitter%E2%80%99s-political-spammers/>
26. **Bogus Grass-roots Politics on Twitter**
MIT Technology Review — Nov. 2, 2010
<http://www.technologyreview.com/computing/26666/page1/>
27. **Fake accounts astroturf Twitter**
Congress.org — Oct. 28, 2010
http://www.congress.org/news/2010/10/28/fake_accounts_astroturf_twitter
28. **Truthy Sleuths Track Twitter 'Turfers**
Fast Company — Oct. 26, 2010
<http://www.fastcompany.com/1697973/truthy-sleuths-track-twitter-turfers>
29. **The flu fighters**
Physics World — Feb. 2, 2010
<http://physicsworld.com/cws/article/print/41576>



30. **Pandemia: mais rápida por carro do que por avião**
Jornal I — Dec. 28, 2009
<http://www.ionline.pt/conteudo/39363-pandemia-mais-rapida-carro-do-que-aviao>
31. **Movimentos pendulares seguem padrão comum no mundo**
Ciencia Hoje — Dec. 21, 2009
<http://www.cienciahoje.pt/index.php?oid=38152&op=all>
32. **IU informaticists show new levels of refinement in predicting human mobility, epidemic spread**
Fierce Biotech — Dec. 19, 2009
<http://www.fiercebiotech.com/press-releases/iu-informaticists-show-new-levels-refinement-predicting-human-mobility-epidemic-sprea>
33. **Spread globally, infect locally: Model predicts transmission of flu**
Scientific American — Dec. 15, 2009
<http://www.scientificamerican.com/blog/post.cfm?id=spread-globally-infect-locally-mode-2009-12-15>
34. **Diseases spread more by car than plane**
USA Today — Dec. 15, 2009
<http://blogs.usatoday.com/sciencefair/2009/12/scientists-diseases-spread-more-by-car-than-plane.htm>
35. **IU ranks high among colleges in 'Twitterverse'**
WTHR Indianapolis — Oct. 16, 2009
<http://www.wthr.com/global/story.asp?s=11330721>
36. **Antivirals could delay pandemic peak**
Emerging Health Threats Forum — Sep. 18, 2009
<http://www.eht-forum.org/news.html?fileId=news090918045236&from=forum>
37. **Modelo computacional faz previsão da potencial propagação da Gripe A**
Ciencia Hoje — Sept. 17, 2009
<http://www.cienciahoje.pt/index.php?oid=35053&op=all>
38. **Apocalypse Not: Behind the Swine Flu Hysteria**
Wired Magazine — Jun. 22, 2009
http://www.wired.com/special_multimedia/2009/st_infoporn_1707
39. **Pandemia e influenza “suína”: A Torino si studia come evitarla**
Gravità Zero — Apr. 29, 2009
<http://www.gravita-zero.org/2009/04/pandemia-e-influenza-suina-torino-si.html>
40. **Classifying individual users w. web analytics**
Science for SEO — Feb. 17, 2009
<http://www.scienceforseo.com/website-analyticsmetrics/classifying-individual-users-w-web-analytics/>
41. **BookRank**
Science for SEO — Feb. 3, 2009
<http://www.scienceforseo.com/ranking-algorithms/bookrank/>

Invited Talks

1. **Modeling Users Activity on Twitter Networks: Validation of Dunbars Number**
Universidad Carlos III, Madrid, Spain — Nov 18, 2011
2. **Towards a characterization of behavior-disease models**
Universitat de les Illes Balears, Palma de Mallorca, Spain — Nov 15, 2011
3. **Political Activity in Social Media**
Wellesley College, Boston, MA — Oct 21, 2011
4. **Modelling the spatial spread of infectious diseases: The Global Epidemic and Mobility computational model**
Paul-Ehrlich-Institut, Frankfurt, Germany — Dec 14, 2010

5. **Techno-Social Networks for the Modelling of Human Behaviour and Epidemic Spreading**
Ecole Normale Suprieure, Lyon, France — Dec 3, 2010
6. **Complex Techno-social Networks For Epidemic Forecasting**
Centro de Fisica do Porto, Porto, Portugal — Set 10, 2010
7. **Proxy Networks for the study of Human-Dynamics**
Universitta di Cagliari, Cagliari, Italy — Jul 8, 2010
8. **Complex Techno-social Networks For Epidemic Forecasting**
Dipartimento Di Matematica E Fisica, Università Cattolica del Sacro Cuore, Brescia, Italy — Jan 7, 2010
9. **Complex Techno-social Networks For Epidemic Forecasting**
Claremont Graduate University, Claremont, CA — Oct 22, 2009
10. **Complex Techno-social Networks For Epidemic Forecasting**
European Conference on Complex Systems, Coventy, UK — Sept 15, 2009
11. **Heisenberg Spin Chains: Simulations and Experiments**
OSG Consortium All Hands Meeting, Raleigh, NC — March 5, 2008
12. **Human Dynamics Revealed Through Web Analytics**
ETH Zurich — July 31, 2008
13. **Human Dynamics Revealed Through Web Analytics**
Centro de Fisica do Porto, Porto, Portugal — July 11, 2008
14. **Optimization Heuristics for Cost Function Minimization: Extremal and Hysteretic Optimization**
Mathematics and Computer Science Division, Argonne National Lab — Feb 29, 2008
15. **Hysteresis Of the Distance Dependent SK spin glass model**
Dipartimento Di Matematica E Fisica, Università Cattolica del Sacro Cuore, Brescia, Italy — July 18, 2007

**Teaching
Experience**

INFO I690 - Foundations of Complex Systems Assistant Instructor, responsible for the modules on “Complex Networks”.	<i>Spring 2011</i>
INFO I601 - Introduction To Complex Systems Assistant Instructor, responsible for the module on “Evolution and Evolutionary Algorithms”	<i>Fall 2009</i>
Physics 421 - Thermal Physics Physics 361 - Analytical Mechanics. Grader	<i>Fall 2007</i>
Physics 526 - Statistical Physics Physics 365 - Electrodynamics I. Grader	<i>Spring 2007</i>
Physics 526 - Statistical Physics. Grader	<i>Spring 2006</i>
Physics 503A - Classical Mechanics I Grader	<i>Fall 2005</i>
Physics 142 - Introductory Physics II Lab section T.A. and Grader	<i>Spring 2005</i>

Physics 141 - Introductory Physics I
Physics 503A - Classical Mechanics I
Lab section T.A. and Grader

Fall 2004

Physics 141 - Introductory Physics I
Recitation section T.A.

Fall 2003

Computer Skills

- Operating Systems
 - Advanced Linux and OSX user
 - Moderately skilled Linux administrator on Red Hat, Fedora and Ubuntu systems.
- Programming languages
 - Extensive use of C/C++ for numerical Monte-Carlo simulations and Python for data analysis.
 - Experience with Java, Perl, Fortran and Visual Basic
- Tools
 - Regular use of Matlab, Mathematica and R for numerical and analytical computation.
 - Experience with FEMLAB and MySQL
 - I built a high performance low budget linux cluster using Condor and DRBL running on diskless nodes, as described in <http://www.linux.com/articles/49654>
 - I've routinely use the Condor cluster software to run my simulations and since 2006, I've used the Open Science Grid computing resources through Condor-G.
 - Routine use of the Big Red Teragrid supercomputer.

Languages

- Portuguese – Native speaker
- English – Fluent
- Italian – Conversational
- Spanish – Conversational - Limited
- French – Basic - Familiar
- Japanese – Basic - Familiar (JLPT Level 4)