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## José Ignacio Alvarez-Hamelin

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Electronic Engineer, Professor of the Universidad de Buenos Aires, and Researcher from CONICET (the National Scientific and Technical Research Council of Argentina), J. Ignacio Alvarez-Hamelin leads the Complex Networks and Data Communication Group at Engineer School of the Universidad de Buenos Aires. Since 2018, he is <http://www.fi.uba.ar/es/node/30> Undersecretary of Research and Doctorate Panning at the Facultad de Ingeniería, Universidad de Buenos Aires.

His research interests include Complex Systems analysis, Internet, Routing Protocols, and Networks. He is Undersecretary of Planning of Research and Doctorate at the Facultad de Ingeniería, Universidad de Buenos Aires (Engineer School of the University of Buenos Aires). He is a member of the Internet Society and the ITU, and he participates actively in the IETF (Internet Engineering Task Force) meetings. Among his research production (peer-review), we count seventeen articles, more than twenty International Conferences and Workshops. All his research is based on national and international grants. He has directed two doctoral theses, three master thesis, and more than thirty undergraduate theses. He has an H-index of ten according to SCOPUS (<https://www.scopus.com/authid/detail.uri?authorId=25721726600>).

The technological production is represented by an Argentinian Patent on a secure access network (also presented to PCT and the European Patent Office), several open-source software, and some contracts with Internet Society and some Argentinian governmental offices.

He also was Tech Fellow to IETF 101, London (by ISOC). <https://www.internetsociety.org/fellowship/fellowship-to-ietf/fellows/101/>.

Among its publications and developed tools we found:

- Jose Alvarez-Hamelin, Alfred Morton, Joachim Fabini, Carlos Pignataro, and Ruediger Geib. Advanced Unidirectional Route Assessment (AURA). Internet-Draft draft-ietf-ippm-route-07, IETF Secretariat, December 2019. <http://www.ietf.org/internet-drafts/draft-ietf-ippm-route-07.txt>.
- Esteban Carisimo, Carlos Selmo, J. Ignacio Alvarez-Hamelin, and Amogh Dhamdhere. Studying the evolution of content providers in ipv4 and ipv6 internet cores. Computer Communications, 145:54 – 65, 2019.
- TiX measurements: open source tool to measure the quality of Internet home access <https://github.com/TiX-measurements>.
- Esteban Carisimo, Sebastián Grynberg, and José Ignacio Alvarez-Hamelin. Influence of traffic in stochastic behavior of latency. In 7th PhD School on Traffic Monitoring and Analysis (TMA), Ireland, Dublin, June 2017. ([http://tma.ifip.org/wordpress/wp-content/uploads/2016/08/EstebanCarisimo\\_poster.pdf](http://tma.ifip.org/wordpress/wp-content/uploads/2016/08/EstebanCarisimo_poster.pdf))
- LaNet-vi: an open source Large Network visualisation software (<http://lanet-vi.fi.uba.ar>), and the online application “==>I’m here! (\*)”([http://lanet-vi.fi.uba.ar/i\\_am\\_here/](http://lanet-vi.fi.uba.ar/i_am_here/))

- J. Ignacio Alvarez-Hamelin, Luca Dall'Asta, Alain Barrat, and Alessandro Vespignani. K-core decomposition of Internet graphs: hierarchies, self-similarity and measurement biases. *Networks and Heterogeneous Media*, 3(2):371-293, 2008.
- Pol Colomer de Simon, M.Angeles Serrano, Mariano G. Beiró, J.Ignacio Alvarez-Hamelin, and Marian Boguñá. Deciphering the global organization of clustering in real complex networks. *Sci. Rep.*, 3:2517, Aug 2013.
- J. I. Alvarez-Hamelin and Nicolas Schabanel. An Internet Graph Model Based on Trade-Off Optimization. *European Physical Journal B*, special issue on “Applications of networks”, 38(2):231-237, march II 2004.
- J. Ignacio Alvarez-Hamelin, A.C. Viana, and M.D. de Amorim. DHT-based Functionalities Using Hypercubes. In K. Al Agha, editor, *International Federation for Information Processing (IFIP), Ad-Hoc Networking*, volume 212, pages 157-176, Boston, 2006. Springer.
- AA Ortega, VA Bettachini, JI Alvarez-Hamelin, and DF Grosz. Hamming-weight minimisation coding for cdma optical access networks with enhanced security. In *Future Generation Communication Technology (FGCT)*, 2012 International Conference on, pages 185–189. IEEE, 2012.

Some updated research information can be found:

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## Appendix: Detailed publications and tools

### Patents

[AHBO15] J.I. Alvarez-Hamelin, V.A. Bettachini, A.A. Ortega, “Dispositivo y método para transmisión segura de datos sobre canales Z mediante CDMA”, patente otorgada en la Repùblica Argentina, AR084155 B1, solicitud P110104539, por 20 años (hasta el 5 de diciembre del 2031), 27 de Febrero del 2015.

[AHBO14] J.I. Alvarez-Hamelin, V.A. Bettachini, A.A. Ortega, “Device and Method for the Secure Transmission of Data over Z-Channels Using CDMA”, Patente Europea P11104EPPC, solicitada el 4 de Julio del 2014.

[AHBO12] J.I. Alvarez-Hamelin, V.A. Bettachini, A.A. Ortega, “Dispositivo y método para transmisión segura de datos sobre canales Z mediante CDMA”, PCT Internacional, N/Ref. PCT/IB2012/057003, 5 de diciembre, 2012.

[AHBO11] J.I. Alvarez-Hamelin, V.A. Bettachini, A.A. Ortega, “Dispositivo y método para transmisión segura de datos sobre canales Z mediante CDMA”, patente solicitada en la Repùblica Argentina, N/Ref. INPI Exp. 20110104539, 5 de diciembre, 2011.

### Books' chapters

[OAHF10] José I. Orlicki, J. Ignacio Alvarez-Hamelin and Pablo I. Fierens, “Scalable Faceted Ranking in Tagging Systems”, Web Information Systems and Technologies – 5th International Conference, WEBIST 2009, Revised Selected Papers, LNBIP, Volume 45, Springer Berlin Heidelberg (2010), J. Cordeiro and J. Filipe Eds. (ISBN 978-3-642-12435-8).

[BDAHV07] Alain Barrat, Luca Dall'Asta and J. Ignacio Alvarez-Hamelin and Alessandro Vespignani, “The large scale structure of the Internet”, Libro: *Large scale structure and dynamics of complex networks: From Information Technology to Finance and Natural Science*, World Scientific (2007), G. Caldarelli and A. Vespignani Eds. (ISBN 978-981-270-664-5).

### Articles

[CDDPAH20] Esteban Carisimo, Julián MartÁn Del Fiore, Diego Dujovne, Cristel Pelsser, J. Ignacio Alvarez-Hamelin. A first look at the Latin American IXPs. SIGCOMM Comput. Commun. Rev., 50(1):18–24, March 2020.

[CSAHD19] Esteban Carisimo, Carlos Selmo, J. Ignacio Alvarez-Hamelin, and Amogh Dhamdhere. Studying the Evolution of Content Providers in IPv4 and IPv6 internet cores. Computer Communications, 145:54 – 65, 2019.

[LFAHSK16] Yannick Leo, Eric Fleury, J. Ignacio Alvarez-Hamelin, Carlos Sarraute, and Márton Karsai. Socioeconomic correlations and stratification in social-communication networks. Journal of the Royal Society Interface, 13(125):0598, 2016.

[MRCVSBAH16] Eduardo Mucelli Rezende Oliveira, Aline Carneiro Viana, Carlos Sarraute, Jorge Brea, and Ignacio Alvarez-Hamelin. On the regularity of human mobility. Pervasive and Mobile Computing, (33):73–90, 2016.

[BGAH15] Mariano G Beiró, Sebastián P Grynberg, and J Ignacio Alvarez-Hamelin. Router-level community structure of the Internet Autonomous Systems. EPJ Data Science, 04(12):1-22, 2015.

**[OBFAH14]** Alfredo A. Ortega, Victor A. Bettachini, Pablo I. Fierens, and J. Ignacio Alvarez-Hamelin. Encrypted CDMA Audio Network. *Journal of Information Security: Scientific Research*, vol.5 . p73 - 82., 2014.

**[PHCBAH14]** Roberto P.J. Perazzo, Laura Hernández, Horacio Ceva, Enrique Burgos, and José Ignacio Alvarez-Hamelin. Study of the influence of the phylogenetic distance on the interaction network of mutualistic ecosystems. *Physica A: Statistical Mechanics and its Applications*, 394(0):124 - 135, 2014.

**[CSSBAHB13]** Pol Colomer de Simon, M. Angeles Serrano, Mariano G. Beiró, J. Ignacio Alvarez-Hamelin, and Marian Boguñá. Deciphering the global organization of clustering in real complex networks. *Sci. Rep.*, 3:2517, Aug 2013.

**[BBGAH13]** Mariano G. Beiro, and Jorge R. Busch, Sebastian Grynberg, José Ignacio Alvarez-Hamelin “Obtaining communities with a fitness growth process”. *Physica A*, 392(9):2278-2293, 2013.

**[AHBB11]** José Ignacio Alvarez-Hamelin, Mariano G. Beiro, and Jorge R. Busch. “Understanding edge-connectivity in the Internet through core-decomposition”. *Internet Mathematics*, 7(1):45-66, 2011.

**[BAHB08]** Mariano G. Beiró, José Ignacio Alvarez-Hamelin and Jorge R. Busch. “A low complexity visualisation tool that helps to perform Complex Systems analysis”. *New Journal of Physics, Focus issues: Visualization in Physics*, vol 10, 125003, 12pp, 2008.

**[AHDBV08]** José Ignacio Alvarez-Hamelin, Luca Dall’Asta, Alain Barrat and Alessandro Vespignani. “K-core decomposition of Internet graphs: hierarchies, self-similarity and measurement biases”. *Networks and Heterogeneous Media*, (3):2, 371-393, 2008.

**[AHP07]** J. Ignacio Alvarez-Hamelin and A. Puglisi, “The dynamical collision network in granular gases”, *Physical Review E*(75):051302, 2007.

**[DABVV06]** L. Dall’Asta, I. Alvarez-Hamelin, A. Barrat, A. Vázquez and A. Vespignani. “Exploring networks with traceroute-like probes: theory and simulations”. *Theor. Comput. Sci.*, 355(1):6–24, 2006.

**[DABVV05a]** L. Dall’Asta, I. Alvarez-Hamelin, A. Barrat, A. Vázquez and A. Vespignani. “Statistical theory of Internet exploration”. *Phys. Rev. E* 71:036135, 2005.

**[AS04]** J. I. Alvarez-Hamelin and Nicolas Schabanel. “An Internet Graph Model Based on Trade-Off Optimization”. *European Physical Journal B, special issue on “Applications of networks”*, 38(2):231-237, March 2004.

**[ADMR96]** J. I. Alvarez-Hamelin, C. E. D’Atellis, H. Mendonça, and M. Ruch. “A new method for quasi on-line eddy current signal analysis: wavelet transform”. *INSIGHT, Journal of The British Institute of Non-Destructive Testing*, 38(10):715–717, 1996.

## International Conferences and Workshops

**[MAHB19]** Tomás Mussi Reyero, José Ignacio Alvarez-Hamelin, and Mariano Gastón Beiró. Topic-based study of a Twitter political network. Technical report, NetSciX2019, Jan 2019.

**[CSAHD18]** Esteban Carisimo, Carlos Selmo, José Ignacio Alvarez-Hamelin, and Amogh Dhamdhere. Studying the Evolution of Content Providers in the Internet Core. In *Network Traffic Measurement and Analysis Conference (TMA Conference 2018)*, Vienna, Austria, June 2018.

**[KGAH19]** Diego Kiedanski, Eduardo Grampán, and J. Ignacio Alvarez-Hamelin. The atlas vision of IPv6 in Latin America: Topology and Latency. In Proceedings of the 10th Latin America Networking Conference, LANC '18, pages 40–47, New York, NY, USA, 2018. ACM

**[EBCVZCMITAHV18]** P. Etchepareborda, M. E. Bierzychudek, L. Carducci, F. E. Veiras, F. G. Zaccagna, E. Corbellini, S. G. Marra, M. Iglesias, M. M. Teggia, J. I. Alvarez-Hamelin, and R. A. Veiga. A project-based learning method applied to an introductory course in electronics engineering. In 2018 IEEE World Engineering Education Conference (EDUNINE), pages 1–4, March 2018.

**[CGAH17]** Esteban Carisimo, Sebastián Grynberg, and José Ignacio Alvarez-Hamelin. Influence of traffic in stochastic behavior of latency. In 7th PhD School on Traffic Monitoring and Analysis (TMA), Ireland, Dublin, June 2017.

**[SBCAHVP16]** Sofía Silva Berenguer, Esteban Carisimo, J. Ignacio Alvarez-Hamelin, and Francisco Valera Pintor. Hidden Internet Topologies Info: Truth or Myth? In Proceedings of the 2016 Workshop on Fostering Latin-American Research in Data Communication Networks, LANCOMM '16, pages 4-6, New York, NY, USA, 2016. ACM.

**[DRARDAH16]** Gabriel Davila Revelo, Mauricio Anderson Ricci, Benoit Donnet, and José Ignacio Alvarez-Hamelin. Unveiling the mpls structure on internet topology. In Traffic Monitoring and Analysis Workshop (TMA), Belgium, Louvain La Neuve, April 2016.

**[CGAH16]** Esteban Carisimo, Sebastián Grynberg, and José Ignacio Alvarez-Hamelin. Revisiting RTT models. In 6th PhD School on Traffic Monitoring and Analysis (TMA), Belgium, Louvain La Neuve, April 2016.

**[LFSAHK15]** Yannick Leo, Eric Fleury, Carlos Sarraute, J. Ignacio Alvarez-Hamelin and Márton Karsai. Socioeconomic correlations in communication networks. NetMob 2015, 7-10 April, MIT MediaLab, Cambridge MA, USA., Book of Abstracs :: Oral, p 42-43, 2015.

**[SBBWZAH15]** Carlos Sarraute, Jorge Brea, Javier Burroni, Klaus Wehmuth, Artur Ziviani and J. Ignacio Alvarez-Hamelin. Social Events in a Time-Varying Mobile Phone Graph. NetMob 2015, 7-10 April, MIT MediaLab, Cambridge MA, USA., Book of Abstracs :: Oral, p 123-125, 2015.

**[GAHV14]** Hernán Galperin, José Ignacio Alvarez-Hamelin, and Maria Fernanda Viecens. Do internet exchange points really matter? evidence from Bolivia. In 2014 TPRC Conference, page 33, Arlington, VA, September 2014. TPRC.

**[CSBAHB13a]** Pol Colomer-de-Simon, M. Angeles Serrano, Mariano G. Beiro, J. Ignacio Alvarez-Hamelin, and Marian Boguna. “Deciphering the global organization of clustering in real complex networks”, in *ECCS - European Conference in Complex Systems*, Barcelona, September 2013. INRIA.

**[OBAHG2012]** Alfredo A. Ortega, Victor A. Bettachini, J. Ignacio Alvarez-Hamelin, and Diego F. Grosz, “Hamming-weight Minimisation Coding for CDMA Optical Access Networks with Enhanced Security”, International Conference on Future Generation Communication Technology (FGCT 2012), pages 185 - 189, London, UK, 12-14 Dec. 2012.

**[PHCBAH12]** Roberto Perazzo, Laura Hernandez, Horacio Ceva, Enrique Burgos, and José Ignacio Alvarez-Hamelin, “The organisation of mutualistic ecosystems: Phylogenetic proximity and nestedness”, in *ECCS - European Conference in Complex Systems*, pages 53-, Brussels, Belgium, September 2012. INRIA.

**[OBAHG11]** A. A. Ortega, V. A. Bettachini, J. I. Alvarez-Hamelin, and D. F. Grosz, “Point-to-point and Point-to-multipoint CDMA Access Network with Enhanced Security,” in Access Networks and In-house Communications (ANIC), OSA (Optical Society of America), 2011, paper ATuB6.

[BBAH10b] M. G. Beiró, J. R. Busch and J. I. Alvarez-Hamelin. “Visualizing communities in dynamic networks”, in *LAWDN – Latin-American Workshop on Dynamic Networks*, (Buenos Aires, Argentina), INRIA, on-line: <http://hal.inria.fr/inria-00531761/en/>, 2010.

[OBGAH10] Alfredo A. Ortega, V. A. Bettachini, D. F. Grosz, J. I. Alvarez-Hamelin. Altas velocidades de transferencia en fibra óptica utilizando FPGAs de bajo costo. In Diego Brenji, editor, Congreso de Microelectrónica Aplicada 2010, pages 126-129, San Justo, 2010. Universidad Nacional de la Matanza (UNLaM).

[OFAH09] José I. Orlíkci, Pablo I. Fierens, and J. Ignacio Alvarez-Hamelin, “Faceted Ranking In Collaborative Tagging Systems: Efficient Algorithms for Ranking Users based on a Set of Tags”, in *WEBIST 2009: Proceedings of the 5th International Conference on Web Information Systems and Technologies (Lisboa, Portugal) (INSTICC Press, ed.)*, INSTICC Press, 2009, pp. 626–633.

[AHB08] J. Ignacio Alvarez-Hamelin and Jorge R. Busch, “Edge connectivity in graphs: an expansion theorem”, in *In-Mat 2008: Proceedings of the 4th Congreso Internacional de Matemática Aplicada a Ingeniería y Enseñanza de Matemática en Ingeniería* (Buenos Aires, Argentina), vol. Matemática Aplicada, Universidad de Buenos Aires, 2008, pp. 2:1–13.

[AH06] J.I.Alvarez-Hamelin, “Taxonomía de los Modelos de Topología de Internet”, in Mecánica Computacional, Interdisciplinary Mathematical Methods, XXV(29):2597-2612, 2006.

[AVA06] J.I. Alvarez-Hamelin, A.C. Viana and M.D. de Amorim, “DHT-based Funcionalities Using Hypercubes”, in *International Federation for Information Processing (IFIP), Ad-Hoc Networking*, ed. K. Al Agha, (Boston: Springer), 212:157–176, 2006.

[ADBV06] J. Ignacio Alvarez-Hamelin, Luca Dall’Asta, Alain Barrat and Alessandro Vespignani. “Large scale networks fingerprinting and visualization using the  $k$ -core decomposition”. *Advances in Neural Information Processing Systems 18*, Y. Weiss and B. Schölkopf and J. Platt ed., MIT Press, Cambridge, MA, 41–50, 2006.

[DABVV04] Luca Dall’Asta, Ignacio Alvarez-Hamelin, Alain Barrat, Alexei Vazquez, Alessandro Vespignani. “Traceroute-like exploration of unknown networks: a statistical analysis”. *CAAN’04: Workshop on Combinatorial and Algorithmic Aspects of Networking*. Banff International Research Station (BIRS), Alberta, Canada; 5–7 August, LNCS 3405, 140–153, 2004.

[AF04] J. I. Alvarez-Hamelin and P. Fraigniaud. “Reducing Packet-Loss by Taking Long-Range Dependencies into Account”. *Networking 2004*, 11-13 may, LNCS: 3042, pp 1096-1107, 2004.

[AF03] J. I. Alvarez-Hamelin and P. Fraigniaud. “ $\lambda$ T: A Multicast Protocol with QoS Support”. In *IEEE 12th International Conference on Computer Communications and Networks (ICCCN)*, 2003, 264–269, 2003.

[A95] J. I. Alvarez-Hamelin. “Thermography: An Experience in Electrical Installations of Atucha I Nuclear Plant”. In *SMiRT 13º*. International Association for Structural Mechanics in Reactor Technology, 30–33, August 1995.

## Technical Reports

[AHMFPG18] Jose Alvarez-Hamelin, Alfred Morton, Joachim Fabini, Carlos Pignataro, and Ruediger Geib. Advanced unidirectional route assessment (aura). Internet-Draft draft-ietf-ippm-route-07, IETF Secretariat, December 2019.

[AHSOG18] Jose Alvarez-Hamelin, David Samaniego, Alfredo Ortega, and Ruediger Geib. Synchronizing internet clock frequency protocol (sic). Internet-Draft draft-alavarez-hamelin-tictoc-sic-02, IETF Secretariat, October 2018.

[CGAH15] Esteban Carisimo, Hernan Galperin, and José Ignacio Alvarez-Hamelin. A new intrinsic way to measure IXP performance: an experience in Bolivia. arXiv e-print, abs/1505.00837, May 2015.

[CSBAHB13b] Pol Colomer-de-Simon, M.Angeles Serrano, Mariano G. Beiro, J.Ignacio Alvarez-Hamelin, and Marian Boguna. “Deciphering the global organization of clustering in real complex networks” arXiv e-print, abs/1306.0112, Jun 2013.

[BBGAH12] Beiró Mariano Gastón, Jorge Rodolfo Busch, Sebastian P. Grynberg, and José Ignacio Alvarez-Hamelin. “Obtaining communities with a fitness growth process.” arXiv e-print, abs/1206.1313, Jun 2012.

[PHCBAH10] Roberto P.J. Perazzo, Laura Hernández, Horacio Ceva, Enrique Burgos, and José Ignacio Alvarez-Hamelin. “Phylogenetic Proximity and Nestedness in Mutualistic Ecosystems.” arXiv e-print, abs/1007.5519, Jul 2010.

[BBAH10c] Jorge Rodolfo Busch, Beiró Mariano Gastón, and José Ignacio Alvarez-Hamelin. “On weakly optimal partitions in modular networks.” arXiv e-print, abs/1008.3443, Aug 2010.

[OBAHG09] Alfredo A. Ortega, Victor A. Bettachini, José Ignacio Alvarez-Hamelin, and Diego F. Grosz. “A CDMA Secure Optical Access Network.” arXiv e-print, abs/0912.5324, Dec 2009.

## Workshops' organization

- LANCOMM, Workshop on Fostering Latin-American Research in Data Communication Networks (LANCOMM 2019), May 7th, 2019, Gramado, Brazil. <http://sbrc2019.sbc.org.br/en/lancomm-student-workshop>
- ACM SIGCOMM Workshop on Fostering Latin-American Research in Data Communication, August 22nd, 2016, Florainópolis, Brazil. <http://conferences.sigcomm.org/sigcomm/2016/lancomm.php>.
- Workshop on Dynamic Networks, November 5-7th, 2013, INTECIN – Facultad de Ingeniería (U.B.A.) – ITBA, Buenos Aires, Argentina.
- Computer Networks Special issue on “Complex Dynamic Networks: Tools and Methods” (Guest Editors: J.I. Alvarez-Hamelin, Eric Fleury, Alessandro Vespignani and Artur Ziviani), Volume 56, Issue 3, Pages 967-1130 (23 February 2012). .
- Workshop on Dynamic Networks, November 22-23th, 2012, INTECIN – Facultad de Ingeniería (U.B.A.), Buenos Aires, Argentina. (with Eric Fleury and Artur Ziviani) <http://cnet.fi.uba.ar/wdn/>
- Latin-American Workshop on Dynamic Networks, November 4th, 2010, INTECIN – Facultad de Ingeniería (U.B.A.), Buenos Aires, Argentina. (with Eric Fleury and Artur Ziviani) <http://cnet.fi.uba.ar/lawdn/>
- International Workshop on Dynamic Networks June 4th, 2010, Avignon, France, (with Eric Fleury and Artur Ziviani) <http://perso.ens-lyon.fr/eric.fleury/WDN2010.html>
- Workshop: Dynamical Complex Systems INTECIN – Facultad de Ingeniería (U.B.A.) December 17th, 2009. <http://cnet.fi.uba.ar/wdcs/>

## Developed Open-Source Tools

- 06/2005——**LaNet-vi**: is an open source Large Network visualization software based on the k-core decomposition (<http://lanet-vi.fi.uba.ar>)
- 08/2007——**Data Communications Scilab Toolbox**: educational tool to analyze different digital communications systems

- 04/2010——**SnailVis**: Graph partitions Visualization, useful for communities <http://cnet.fi.uba.ar/mariano.beiro/snailvis.tar.gz>.
- 02/2012——**ComplexNets++**: This toolbox provides different tools to analyze complex networks, i.e., networks issues from complex systems or any graph in general. <https://github.com/CoNexDat/complexnets>.
- 08/2011——**I am here**: Page wet to display the Internet-ASes map visualization using LaNet-vi, highlighting from where the actual user is connected (Word, Region and Country). [http://lanet-vi.fi.uba.ar/i\\_am\\_here/](http://lanet-vi.fi.uba.ar/i_am_here/)
- 03/2012——**CommuGP**: Community detection, based un growing [BBGAH13], BSD 3-Clause License. <https://github.com/ihameeli/commugp>
- 05/2016——**TiX-measurements**: open source tool to measure the quality of Internet home access <https://github.com/TiX-measurements>.
- 01/2018——**ANTop partition and mixing (Debian distribution)**: This version of ANTop ad-hoc routing protocol is done for Debian distribution of Linux. <https://github.com/CoNexDat/ANTop>.
- 02/2018——**Content Providers k-core Evolution**: Content Providers in the AS ecosystem after the widespread growth of private CDNs (see CSAHD19). <https://github.com/CoNexDat/CPcoreEvo> and <https://cnet.fi.uba.ar/TMA2018/>.
- 06/2018——**SIC: Synchronizing Internet Clocks**: is the implementation of the Internet-Draft [AHSOG18].<https://github.com/CoNexDat/SIC>.
- 07/2019——**Argentine Elections 2019 in Twitter**: <http://elecciones2019.fi.uba.ar>.