GEERT LEUS

Curriculum vitae - List of publications

May 2018

Date & Place of Birth :
May 30, 1973, Leuven, Belgium

Marital Status :
Not married

Education :

1996-2000: Ph.D. in Applied Sciences
Katholieke Universiteit Leuven, Belgium, May 2000
Signal Processing Algorithms for CDMA-Based Wireless Communications
promotor: Prof. Marc Moonen

1991-1996: M.Sc. in Electrical Engineering
option Electronics - Automation and Computer Systems
Katholieke Universiteit Leuven, Belgium, July 1996

1985-1991: Mathematics III - Sciences I
Koninklijk Atheneum I Hasselt, Belgium, July 1991

Employment :

2012-present: "Antoni van Leeuwenhoek" Full Professor
Delft University of Technology, The Netherlands

2007-2012: Associate Professor
Delft University of Technology, The Netherlands

2003-2007: Assistant Professor
Faculty of Electrical Engineering, Mathematics and Computer Science
Delft University of Technology, The Netherlands

2000-2003: Postdoctoral Fellow of the Fund for Scientific Research - Flanders
Department of Electrical Engineering
Katholieke Universiteit Leuven, Belgium

1996-2000: Research Assistant of the Fund for Scientific Research - Flanders
Department of Electrical Engineering
Katholieke Universiteit Leuven, Belgium

Affiliation :

Faculty of Electrical Engineering, Mathematics and Computer Science
Delft University of Technology
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2628 CD Delft, The Netherlands
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Research Areas :

- Theory and methods:
  - Adaptive and statistical signal processing
  - (Distributed) detection and estimation
  - Compressive (covariance) sensing
  - Graph signal processing
  - Linear algebra
- Communications:
  - Channel estimation and equalization
  - Training design
  - Multiuser detection
  - Communications over rapidly time-varying channels
  - Underwater communications
  - Ultra-wideband communications
  - Cognitive radio
  - Spectrum sensing
  - Indoor localization and tracking
- Sensor array and multichannel processing:
  - Sensor selection and placement
  - Antenna array design
  - Direction of arrival estimation

Committee Assignments :

1. Member-at-Large to the Board of Governors of the IEEE Signal Processing Society (January 2014-December 2016).
2. Past Chair of IEEE Signal Processing for Communications and Networking Technical Committee (January 2011-December 2011).
3. Chair of the IEEE Signal Processing for Communications and Networking Technical Committee (January 2009-December 2010).
4. Vice Chair of the EURASIP Special Area Team Signal Processing for Multisensor Systems (January 2016-present).
5. Vice Chair of the IEEE Signal Processing for Communications and Networking Technical Committee (January 2007-December 2008).
6. Member of the EURASIP Special Area Team Signal Processing for Communications and Networking (January 2016-December 2017).
7. Member of the IEEE Sensor Array and Multichannel Technical Committee (January 2012-December 2017).
8. Member of the IEEE Signal Processing for Communications Technical Committee (January 2002-December 2006).
9. Advisory Board Member Campus do Mar (October 2010-present).

Editorships :

1. Editor in Chief of EURASIP Signal Processing (January 2018 - present)
2. Editor in Chief of the EURASIP Journal on Advances in Signal Processing (January 2013-December 2017).
3. Associate Editor of Foundations and Trends in Signal Processing (January 2014-present).
4. Associate Editor of the EURASIP Journal on Advances in Signal Processing (July 2004-December 2012).
5. Associate Editor of the IEEE Transactions on Signal Processing (April 2006-March 2010).
6. Associate Editor of the IEEE Transactions on Wireless Communications (April 2002-June 2006).
7. Associate Editor of the IEEE Signal Processing Letters (July 2001-June 2005).
8. Guest Editor, EURASIP Journal on Advances in Signal Processing, Distributed and Centralized Estimation in Wireless Sensor Networks, 2016.
9. Guest Editor, IEEE Signal Processing Magazine, Signal Processing for the 5G Revolution, 2014.
10. Guest Editor, EURASIP Journal on Advances in Signal Processing, Object Tracking and Monitoring Using Advanced Signal Processing Techniques, 2012.
11. Guest Editor, Elsevier Physical Communications, Compressive Sensing in Communications, 2012.
12. Guest Editor, IEEE Journal of Selected Topics in Signal Processing, Soft Detection for Wireless Transmission, 2011.
13. Guest Editor, EURASIP Journal on Wireless Communications and Networking, Interference Management in Wireless Communication Systems: Theory and Applications, 2011.
14. Guest Editor, EURASIP Journal on Applied Signal Processing, Reliable Communications over Rapidly Time-Varying Channels, 2006.
15. Guest Editor, EURASIP Journal on Applied Signal Processing, Improved CDMA Detection Techniques for Future Wireless Systems, 2005.

Conference Organization :

1. General Chair, Asilomar Conference on Signals, Systems, and Computers (Asilomar 2017).
2. General Co-Chair, IEEE Workshop on Signal Processing Advances in Wireless Communications (SPAWC 2009).
3. Technical Program Chair, Asilomar Conference on Signals, Systems, and Computers (Asilomar 2014).
4. Technical Program Co-Chair, IEEE Workshop on Computational Advances in Multi-Sensor Adaptive Processing (CAMSAP 2019).
5. Technical Program Co-Chair, IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC 2017).
6. Technical Program Co-Chair, IEEE Workshop on Signal Processing Advances in Wireless Communications (SPAWC 2009, 2012).

7. Area Chair, EURASIP European Signal Processing Conference (EUSIPCO 2008, 2016, 2017, 2018).
8. Track Chair, IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC 2010).
9. Vice Track Chair, Asilomar Conference on Signals, Systems, and Computers (Asilomar 2011).
10. Student Paper Contest Chair, Asilomar Conference on Signals, Systems, and Computers (Asilomar 2012).
11. Local Arrangement Co-Chair, IEEE Workshop on Computational Advances in Multi-Sensor Adaptive Processing (CAMSAP 2017).
12. Publicity Chair, ACM International Conference on Underwater Networks and Systems (WUWNet 2015).
13. Special Session Organizer, IEEE Data Science Workshop (DSW 2018).
14. Special Session Organizer, Information Theory and Applications Workshop (ITA 2018).
15. Special Session Organizer, IEEE Sensor Array and Multichannel Signal Processing Workshop (SAM 2014).
16. Special Session Organizer, Asilomar Conference on Signals, Systems, and Computers (Asilomar 2010, 2011, 2012, 2013, 2015, 2016).
17. Special Session Organizer, EURASIP European Signal Processing Conference (EUSIPCO 2013, 2017).
18. Special Session Organizer, IEEE Workshop on Computational Advances in Multi-Sensor Adaptive Processing (CAMSAP 2009, 2011, 2015, 2017).
19. Special Session Organizer, International Workshop on Cognitive Information Processing (CIP 2010).
20. Special Session Organizer, IEEE International Conference on Ultra-Wideband (ICUWB 2008).
21. Special Session Organizer, IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 2004).
22. Member of Technical Program Committee, IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018).
23. Member of Technical Program Committee, IEEE Sensor Array and Multichannel Signal Processing Workshop (SAM 2014, 2016, 2018).
24. Member of Technical Program Committee, IEEE Workshop on Computational Advances in Multi-Sensor Adaptive Processing (CAMSAP 2013, 2015, 2017).
25. Member of Technical Program Committee, IEEE Workshop on Signal Processing Advances in Wireless Communications (SPAWC 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013).
26. Member of Technical Program Committee, IEEE Data Science Workshop (DSW 2018).
27. Member of Technical Program Committee, ITG/IEEE Workshop on Smart Antennas (WSA 2007, 2008, 2009, 2010, 2012).

28. Member of Technical Program Committee, International Workshop on UnderWater Networks (WUWNet 2010, 2012, 2014, 2015, 2016).
29. Member of Technical Program Committee, International Workshop on Compressed Sensing Theory and its Applications to Radar, Sonar, and Remote Sensing (CoSeRa 2016, 2018).
30. Member of Technical Program Committee, IEEE Global Conference on Signal and Information Processing (GlobalSIP 2016, 2017).
31. Member of Technical Program Committee, International Conference on Cognitive Radio Oriented Wireless Networks and Communications (CrownCom 2010).
32. Member of Technical Program Committee, International Workshop on Cognitive Information Processing (CIP 2010).
33. Member of Technical Program Committee, IEEE Vehicular Technology Conference (VTC-Fall 2004, Spring 2006, Spring 2009).
34. Member of Technical Program Committee, ACM Cognitive Radio Networks Workshop (ACM CoRoNet 2009).
35. Member of Technical Program Committee, IEEE International Conference on Communications (ICC 2008).
36. Member of Technical Program Committee, IEEE International Conference on Ultra-Wideband (ICUWB 2008, 2010, 2012).
37. Member of Technical Program Committee, International Symposium on Signal Processing and its Applications (ISSPA 2007).
38. Member of Technical Program Committee, IEEE Global Telecommunications Conference (GLOBECOM 2004, 2006).
39. Member of Technical Program Committee, EURASIP European Signal Processing Conference (EUSIPCO 2006).

Awards :

1. Distinguished Lecturer of the IEEE Signal Processing Society, 2018–2019.
2. EURASIP Fellow Grade, 2016.
3. IEEE Fellow Grade, 2012.
4. IEEE Senior Member Grade, 2005.
5. IEEE Signal Processing Society Best Paper Award 2005 for "Blind and Semi-Blind Equalization for Generalized Space-Time Block Codes," TSP, October 2002.
6. IEEE Signal Processing Society Young Author Best Paper Award 2002 for "Deterministic Blind Modulation-Induced Source Separation for Digital Wireless Communications," TSP, January 2001.
7. Co-author of IEEE Signal Processing Society Young Author Best Paper Award 2016 for "Channel Estimation and Hybrid Precoding for Millimeter Wave Cellular Systems," JSTSP, October 2014.
8. Best Paper Award at the IEEE Sensor Array and Multichannel Signal Processing Workshop (SAM 2016).

9. Best Paper Award at the International Conference on Sensor Device Technologies and Applications (SENSORDEVICES 2010).
10. Co-author of Best Student Paper Award at the IEEE Workshop on Computational Advances in Multi-Sensor Adaptive Processing (CAMSAP 2017).
11. Co-author of Best Student Paper Award at the Asilomar Conference on Signals, Systems, and Computers (Asilomar 2015).
12. Co-author of Best Student Paper Award at the IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 2015).
13. Co-author of Best Student Paper Award at the International Workshop on Cognitive Information Processing (CIP 2010).

Grants :

1. STW Open Technology Program Grant, "tASk-cognizant sParse sensing for InfeREnce (ASPIRE)," principal investigator, 2016-2020 (700K euro).
2. KAUST Grant, "Perpetual Wireless Sensor Networks for Large-Scale Wide Area Monitoring," co-principal investigator, 2016-2018 (300K euro).
3. TNO Grant, "Autonomous Underwater Vehicles for Military Operations," co-principal investigator, 2014-2018 (200K euro).
4. FP7 Project Grant, "autoNomous, self-learning, OPTImal and compLete Underwater Systems (NOPTILUS)," co-principal investigator, 2011-2014 (4M euro).
5. STW Autonomous Sensor Systems Grant, "Dependable Distributed Sensor Systems (D2S2)," co-principal investigator, 2010-2015 (1M euro).
6. NWO VICI Grant, "Signal Processing for Self-Organizing Wireless Networks (SOWN)," principal investigator, 2009-2014 (1.25M euro).
7. STW Green and Smart Process Technology Grant, "Product Quality Control Using Smart PEAS-Based UWB-Technology (Smart PEAS)," co-principal investigator, 2007-2011 (600K euro)
8. NWO VIDI Grant, "Reliable Wireless Communications over Rapidly Time-Varying Channels (TVCOM)," principal investigator, 2004-2009 (600K euro).
9. FWO Research Project Grant, "Design of Efficient Communication Techniques for Wireless Time-Dispersive Multi-User MIMO Systems," co-investigator, 2002-2005 (250K euro).
10. FWO Study Leave Grant, SPinCOM (Prof. G. Giannakis), University of Minnesota, Minneapolis, MN, March–June 2001.
11. FWO Study Leave Grant, SARG (Prof. A. Paulraj), Stanford University, Stanford, CA, August–September 1998.
12. FWO Postdoctoral Scholarship, 2000–2003.
13. FWO Doctoral Scholarship, 1996–2000.

Patent Applications :

1. *CDMA transceiver techniques for multiple input multiple output (MIMO) wireless communications.*
   F. Petré and G. Leus.
   US Patent Application, No. 03447096.3-2415. Date of filing 25/04/2003.
2. *Wideband multiple access telecommunication method and apparatus.*
   F. Petré, G. Leus, and M. Moonen.
   US Patent Application, No. 10/134,307. Date of filing 26/04/2002.
3. *Multicarrier receiver with per-carrier RLS frequency domain equalisation.*
   K. Van Acker, G. Leus, M. Moonen, T. Pollet and O. van de Wiel.
   European Patent, EP0967763, Publication date 29/12/1999.
   Australian Patent, AU750466, Publication date 13/1/2000.
   Japan Patent, JP2000115124.
4. *Equalization in multicarrier receivers.*
   K. Van Acker, G. Leus, M. Moonen and O. van de Wiel.
   European Patent, EP0969637, Publication date 5/1/2000.
   Australian Patent, AU3681599.

Long Visits :

1. Visiting Researcher, SPinCOM (Prof. G. Giannakis), University of Minnesota, Minneapolis, MN, November 2012– December 2012.
2. Visiting Researcher, SPinCOM (Prof. G. Giannakis), University of Minnesota, Minneapolis, MN, January 2011–February 2011.
3. Visiting Researcher, SPinCOM (Prof. G. Giannakis), University of Minnesota, Minneapolis, MN, January 2010–February 2010.
4. Visiting Researcher and Instructor, SPinCOM (Prof. G. Giannakis), University of Minnesota, Minneapolis, MN, March–June 2001 / September 2001–June 2002.
5. Visiting Researcher, SARG (Prof. A. Paulraj), Stanford University, Stanford, CA, August–September 1998.

Teaching :

1. *Applied Convex Optimization*, Delft University of Technology, Delft, The Netherlands, 2016–2017 (with Sundeep Chepuri), 2017–2018 (with Sundeep Chepuri)
2. *Estimation and Detection*, Delft University of Technology, Delft, The Netherlands, 2011–2012, 2012–2013, 2013–2014 (with J. Martinez Castaneda), 2014–2015 (with J. Martinez Castaneda).
3. *Signal Processing for Communications*, Delft University of Technology, Delft, The Netherlands, 2003–2004 (with A.-J. van der Veen), 2004–2005, 2005–2006, 2006–2007, 2007–2008, 2008–2009, 2009–2010, 2010–2011, 2011–2012, 2012–2013, 2013–2014, 2014–2015, 2015–2016, 2016–2017, 2017–2018.
4. *Digital Signal Processing*, Delft University of Technology, Delft, The Netherlands, 2004–2005 (with P. Dewilde and B. Jeffs), 2005–2006 (with P. Dewilde), 2006–2007 (with P. Dewilde), 2007–2008 (with P. Dewilde), 2008–2009 (with A.-J. van der Veen), 2009–2010 (with A.-J. van der Veen), 2010–2011 (with A.-J. van der Veen), 2011–2012 (with A.-J. van der Veen), 2012–2013 (with A.-J. van der Veen), 2013–2014 (with A.-J. van

der Veen), 2014–2015 (with A.-J. van der Veen), 2015–2016 (with A.-J. van der Veen), 2016–2017 (with A.-J. van der Veen).

5. *Array Processing and Underwater Communications*, University of Pisa, Pisa, Italy, 2011.
6. *Signal Processing*, Delft University of Technology, Delft, The Netherlands, 2005–2006 (with A.-J. van der Veen).
7. *Signals and Systems*, University of Minnesota, Minneapolis, MN, 2001–2002.
8. *BEST Summer Course on Digital Signal Processing*, Katholieke Universiteit Leuven, Leuven, Belgium, Summer 2002.

PhD Committees :

1. Christos Politis, University of Luxembourg, March 9, 2018.
2. Yongchang Hu, Delft University of Technology, October 24, 2017.
3. Miguel Calvo-Fullana, Universitat Politècnica de Catalunya (UPC), July 25, 2017.
4. Nicoleta Cucu Laurenciu, Delft University of Technology, January 26, 2017.
5. Inna Ivashko, Delft University of Technology, December 13, 2016.
6. Seyran Khademi, Delft University of Technology, November 22, 2016.
7. Raj Thilak Rajan, Delft University of Technology, October 28, 2016.
8. Luis Miguel López Ramos, King Juan Carlos University, October 26, 2016.
9. Bernhard Etzlinger, Johannes Kepler University, September 6, 2016.
10. Hamid Ramezani, Delft University of Technology, June 15, 2016.
11. Ahmad Mouri Sardarabadi, Delft University of Technology, June 6, 2016.
12. Hantao Xu, Katholieke Universiteit Leuven, May 31, 2016.
13. Claudia Soares, Instituto Superior Técnico, May 2, 2016.
14. Mohd Adib Bin Sarijari, Delft University of Technology, April 19, 2016.
15. Sundeep Prabhakar Chepuri, Delft University of Technology, January 25, 2016.
16. Mu Zhou, Delft University of Technology, December 4, 2015.
17. Dmytro Penkin, Delft University of Technology, November 19,2015.
18. Ana Mafalda, Delft University of Technology, November 4, 2015.
19. Gert Cuypers, Katholieke Universiteit Leuven, October 9, 2015.
20. Song Yang, Delft University of Technology, June 1, 2015.
21. Daniel Romero, University of Vigo, May 22, 2015.
22. Dony Dyonisius Arianandа, Delft University of Technology, March 19, 2015.
23. Andreas Loukas, Delft University of Technology, March 11, 2015.
24. Fotios Katsilieris, Delft University of Technology, March 5, 2015.
25. Hadi Jamali Rad, Delft University of Technology, December 22, 2014.
26. Thibault Deleu, Université Libre de Bruxelles, November 2014.
27. Shahzad Gishkori, Delft University of Technology, June 19, 2014.
28. Muhammad Nadeem, Delft University of Technology, May 15, 2014.

29. Yuan He, Delft University of Technology, April 16, 2014.
30. Hannes Kutscha, Delft University of Technology, January 31, 2014.
31. Franck Iutzeler, Telecom ParisTech, December 6, 2013.
32. Jorge Martinez Castaneda, Delft University of Technology, November 22, 2013.
33. Mohammad Reza Gholami, Chalmers University of Technology, November 12, 2013.
34. Karsten Fyhn, Aalborg University, October 28, 2013.
35. Sina Maleki, Delft University of Technology, October 25, 2013.
36. Muhammed Seyab, Delft University of Technology, September 17, 2013.
37. Pawel Miroslaw Stano, Delft University of Technology, June 12, 2013.
38. Cees Taal, Delft University of Technology, January 25, 2012.
39. Tao Xu, Delft University of Technology, January 15, 2012.
40. Yiyin Wang, Delft University of Technology, November 14, 2011.
41. Claude Simon, Delft University of Technology, November 4, 2011.
42. Prabin Kumar Pandy, Katholieke Universiteit Leuven, October 26, 2011.
43. Yves Vanderperren, Katholieke Universiteit Leuven, June 1, 2010.
44. Deepak Tandur, Katholieke Universiteit Leuven, March 25, 2010.
45. Kun Fang, Delft University of Technology, March 1, 2010
46. Yan Wu, Eindhoven University of Technology, November 23, 2009.
47. Ruben de Francisco, Eurecom Institute, February 29, 2008.
48. Quang Hieu Dang, Delft University of Technology, February 15, 2008.
49. Zijian Tang, Delft University of Technology, November 20, 2007.
50. José A. lópez-Salcedo, Universitat Politècnica de Catalunya (UPC), March 28, 2007.
51. Alfonso Cano, Universidad Carlos III de Madrid, June 28, 2006.
52. Timo Roman, Helsinki University of Technology, April 6, 2006.
53. Nadia Khaled, Katholieke Universiteit Leuven, December 22, 2005.
54. Imad Barhumi, Katholieke Universiteit Leuven, September 30, 2005.
55. Olivier Rousseaux, Katholieke Universiteit Leuven, January 14, 2005.
56. Geert Ysebaert, Katholieke Universiteit Leuven, April 29, 2004.
57. Frederik Petré, Katholieke Universiteit Leuven, December 19, 2003.

PhD Guidance :

1. Krishna Prasad, Delft University of Technology, ongoing (promotor)
2. Mario Coutiño, Delft University of Technology, ongoing (promotor)
3. Pim van der Meulen, Delft University of Technology, ongoing (promotor)
4. Matthew Morency, Delft University of Technology, ongoing (promotor)
5. Jiani Liu, Delft University of Technology, ongoing (promotor)
6. Elvin Isufi, Delft University of Technology, ongoing (promotor)

7. Venkat Roy, Delft University of Technology, ongoing (promotor)
8. Yongchang Hu, Delft University of Technology, promoted (promotor)
9. Hamid Ramezani, Delft University of Technology, promoted (promotor)
10. Sundeep Prabhakar Chepuri, Delft University of Technology, promoted (promotor)
11. Dyonisius Dony Ariananda, Delft University of Technology, promoted (promotor)
12. Hadi Jamali Rad, Delft University of Technology, promoted (promotor)
13. Shahzad Gishkori, Delft University of Technology, promoted (promotor)
14. Sina Maleki, Delft University of Technology, promoted (promotor)
15. Tao Xu, Delft University of Technology, promoted (co-promotor)
16. Yiyin Wang, Delft University of Technology, promoted (co-promotor)
17. Claude Simon, Delft University of Technology, promoted (co-promotor)
18. Yves Vanderperren, Katholieke Universiteit Leuven, promoted (co-promotor)
19. Kun Fang, Delft University of Technology, promoted (co-promotor)
20. Zijian Tang, Delft University of Technology, promoted (co-promotor).
21. Relja Djapic, Delft University of Technology, promoted (co-promotor).
22. Nadia Khaled, Katholieke Universiteit Leuven, promoted (co-promotor).
23. Imad Barhumi, Katholieke Universiteit Leuven, promoted (co-promotor).
24. Olivier Rousseaux, Katholieke Universiteit Leuven, promoted (co-promotor).
25. Frederik Petré, Katholieke Universiteit Leuven, promoted (co-promotor).

Keynotes :

1. *Statistical Inference through Sparse Sensing*, IEEE SPS Distinguished Lecture, Spanish Workshop on Signal Processing, Information Theory and Communications (SIC 2018), San Sebastian, Spain, January 2018.
2. *Stationary Graph Signals: Power Spectral Density Estimation and Sampling*, IEEE Global Conference on Signal and Information Processing (GlobalSIP 2017), Symposium on Graph Signal Processing, Montreal, Canada, November 2017.
3. *Autoregressive Moving Average Graph Filters*, Graph Signal Processing Workshop (GSP 2017), Carnegie Mellon University, Pittsburgh, PA, May 2017.
4. *Sparse Sensing for Statistical Inference*, Sensor Signal Processing for Defence Conference (SSPD 2016), Edinburgh, United Kingdom, September 2016.
5. *Sparse Sensing for Statistical Inference*, Spanish Workshop on Signal Processing, Information Theory and Communications (SIC 2016), Santander, Spain, July 2016.
6. *Sparse Sensing for Statistical Inference*, ICASSP 2016 - Workshop on Sensor Array and Communications (ICASSP 2016-WSAC), Xi'an, China, March 2016.
7. *Compressive Power Spectrum Estimation*, Statistics, Optimization, and Signal Processing Workshop (STATOS 2013), Darmstadt, Germany, Germany 2013.

Tutorials :

1. *Sparse Sensing for Statistical Inference*, EURASIP European Signal Processing Conference (EUSIPCO 2016), Budapest, Hungary, August 2016.

2. *Sparse Sensing for Statistical Inference*, IEEE Sensor Array and Multichannel Signal Processing Workshop (SAM 2016), Rio de Janeiro, Brazil, July 2016.
3. *Compressive Covariance Sensing for Radar Applications*, International Workshop on Compressed Sensing Theory and its Applications to Radar, Sonar, and Remote Sensing (CoSeRa 2015), Pisa, Italy, June 2015.
4. *Compressive Covariance Sensing*, International Conference on Acoustics, Speech, and Signal Processing (ICASSP 2015), Brisbane, Australia, April 2015.
5. *Compressive Covariance Sensing*, European Signal Processing Conference (EUSIPCO 2014), Lisbon, Portugal, September 2014.

Books :

[1] G. Leus. *Signal Processing Algorithms for CDMA-Based Wireless Communications*. PhD thesis, K.U.Leuven, Leuven, Belgium, May 2000.

[2] S.P. Chepuri and G. Leus. *Sparse Sensing for Statistical Innference*, volume 9 of *Foundations and Trends in Signal Processing*. now publishers, 2016.

Book Chapters :

[1] G. Leus, Zijian Tang, and P. Banelli. *Wireless Communications over Rapidly Time-Varying Channels*, chapter Estimation of Time-Varying Channels – A Block Approach. Academic Press, 2011.

[2] L. Rugini, P. Banelli, and G. Leus. *Wireless Communications over Rapidly Time-Varying Channels*, chapter OFDM Communications over Time-Varying Channels. Academic Press, 2011.

[3] A.-J. van der Veen and G. Leus. *Short Range Wireless Communication: Emerging Technologies and Applications*, chapter Transmit Reference UWB Systems. Wiley, 2009.

[4] G. Leus and A.-J. van der Veen. *Smart Antennas – State-of-the-Art*, chapter Channel Estimation. Hindawi, 2005.

[5] G. Leus and M. Moonen. *Handbook on Signal Processing for Communications*, chapter Equalization Techniques for Fading Channels. CRC Press, 2004.

Journal Papers :

[1] P. Di Lorenzo, P. Banelli, E. Isufi, S. Barbarossa, and G. Leus. Adaptive graph signal processing: Algorithms and optimal sampling strategies. *IEEE Transactions on Signal Processing*, 66(13):3584–3598, July 2018.

[2] Jiachen Wang, Hantao Xu, G. Leus, and G.A.E. Vandenbosch. Experimental assessment of the coarray concept for doa estimation in wireless communications. *IEEE Transactions on Antennas and Propagation*, 66(6):3064–3075, June 2018.

[3] E. Isufi, A.S.U. Mahabir, and G. Leus. Blind graph topology change detection. *IEEE Signal Processing Letters*, 25(5):655–659, May 2018.

[4] T. Ebihara, G. Leus, and H. Ogasawara. Underwater acoustic communication using doppler-resilient orthogonal signal division multiplexing in a harbor environment. *Elsevier Physical Communication*, 27:24–35, April 2018.

[5] P. Kruizinga, P. van der Meulen, A. Fedjajevs, F. Mastik, G. Springeling, N. de Jong, J.G. Bosch, and G. Leus. Compressive 3D ultrasound imaging using a single sensor. *Science Advances*, 3(12):12 pages, December 2017.

[6] R. Arroyo-Valles, A. Simonetto, and G. Leus. Consistent sensor, relay, and link selection in wireless sensor networks. *Elsevier Signal Processing*, 140:32–44, November 2017.

[7] A.G. Marques, S. Segarra, G. Leus, and A. Ribeiro. Stationary graph processes and spectral estimation. *IEEE Transactions on Signal Processing*, 65(22):5911–5926, November 2017.

[8] A. Simonetto, A. Koppel, A. Mokhtari, G. Leus, and A. Ribeiro. Decentralized prediction-correction methods for networked time-varying convex optimization. *IEEE Transactions on Automatic Control*, 62(11):5724–5738, November 2017.

[9] S.P. Chepuri and G. Leus. Graph sampling for covariance estimation. *IEEE Transactions on Signal and Information Processing over Networks*, 3(3):451–466, September 2017.

[10] A. Alkhateeb, G. Leus, and R.W. Heath. Multi-layer precoding: A potential solution for full-dimensional massive mimo systems. *IEEE Transactions on Wireless Communications*, 16(9):5810–5824, September 2017.

[11] E. Isufi, A. Loukas, A. Simonetto, and G. Leus. Filtering random graph processes over random time-varying graphs. *IEEE Transactions on Signal Processing*, 65(16):4406–4421, August 2017.

[12] Jing Han, Wentao Shi, and G. Leus. Space-frequency coded orthogonal signal-division multiplexing over underwater acoustic channels. *JASA Express Letters*, 141(6):513–518, June 2017.

[13] Yongchang Hu and G. Leus. Robust differential received signal strength-based localization. *IEEE Transactions on Signal Processing*, 65(12):3261–3276, June 2017.

[14] Jing Han and G. Leus. Space-time and space-frequency block coded vector OFDM modulation. *IEEE Communications Letters*, 21(1):204–207, January 2017.

[15] E. Isufi, A. Loukas, A. Simonetto, and G. Leus. Autoregressive moving average graph filtering. *IEEE Transactions on Signal Processing*, 65(2):274–288, January 2017.

[16] I. Ivashko, G. Leus, and A. Yarovoy. Radar network topology optimization for joint target position and velocity estimation. *Elsevier Signal Processing*, 130:279–288, January 2017.

[17] Yongchang Hu and G. Leus. On a unified framework for linear nuisance parameters. *EURASIP Journal on Advances in Signal Processing*, 2017(4):14 pages, January 2017.

[18] V. Roy, A. Simonetto, and G. Leus. Spatio-temporal sensor management for environmental field estimation. *Elsevier Signal Processing*, 128:369–381, November 2016.

[19] A. Simonetto, A. Mokhtari, A. Koppel, G. Leus, and A. Ribeiro. A class of prediction-correction methods for time-varying convex optimization. *IEEE Transactions on Signal Processing*, 64(17):4576–4591, September 2016.

[20] S. Segarra, A. G. Marques, G. Leus, and A. Ribeiro. Reconstruction of graph signals through percolation from seeding nodes. *IEEE Transactions on Signal Processing*, 64(16):4363–4378, August 2016.

[21] S. Liu, S. P. Chepuri, M. Fardad, E. Maşazade, G. Leus, and P. K. Varshney. Sensor selection for estimation with correlated measurement noise. *IEEE Transactions on Signal Processing*, 64(13):3509–3522, July 2016.

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Invited Lectures :

1. *Edge-Variant Graph Filters*, Graph Signal Processing Workshop, EPFL, Lausanne, Switzerland, May 2018.
2. *Graph Signal Processing in Sensor Networks and Distributed Signal Processing*, IEEE SPS Distinguished Lecture, Multimedia Nusantara University, Jakarta, Indonesia, March 2018.
3. *Statistical Inference through Sparse Sensing*, IEEE SPS Distinguished Lecture, Trisakti University, Jakarta, Indonesia, March 2018.
4. *Statistical Inference through Sparse Sensing*, IEEE SPS Distinguished Lecture, University of Indonesia, Jakarta, Indonesia, March 2018.
5. *Statistical Inference through Sparse Sensing*, IEEE SPS Distinguished Lecture, Telkom University, Bandung, Indonesia, March 2018.
6. *Compressive Ultrasound Imaging*, IEEE SPS Distinguished Lecture, University of Technology Malaysia, Kuala Lumpur, Malaysia, March 2018.

7. *Statistical Inference through Sparse Sensing*, IEEE SPS Distinguished Lecture, University of Technology Malaysia, Kuala Lumpur, Malaysia, March 2018.
8. *Graph Signal Processing: Filters and Spectral Estimation*, IEEE SPS Distinguished Lecture, University of Technology Malaysia, Johor Bahru, Malaysia, March 2018.
9. *Sparse Sensing for Statistical Inference*, IEEE SPS Distinguished Lecture, Nanyang Technological University, Singapore, March 2018.
10. *Sparse Sensing for Distributed Detection*, IEEE SPS Distinguished Lecture, University of Minnesota, Minneapolis, Minnesota, February 2018.
11. *Graph Signal Processing: Graph Filters and Stationarity*, IEEE SPS Distinguished Lecture, University of California San Diego, San Diego, California, February 2018.
12. *Filtering Graph Signals*, Information Theory and Applications Workshop (ITA 2018), San Diego, Calfornia, February 2018.
13. *Graph Signal Processing: Filters and Spectral Estimation*, IEEE SPS Distinguished Lecture, MIT, Boston, February 2018.
14. *Graph Signal Processing: Graph Filters and Stationarity*, IEEE SPS Distinguished Lecture, King Juan Carlos University, Madrid, Spain, January 2018.
15. *Graph Signal Processing: Graph Filters and Stationarity*, IEEE SPS Distinguished Lecture, Carlos III University of Madrid, Madrid, Spain, January 2018.
16. *Graph Signal Processing: Graph Filters and Stationarity*, IEEE SPS Distinguished Lecture, CTTC, Barcelona, Spain, January 2018.
17. *Graph Signal Processing: Graph Filters*, University of Pennsylvania, Philadelphia, Pennsylvania, USA, November 2017.
18. *Graph Signal Processing: Graph Filters*, Temple University, Philadelphia, Pennsylvania, USA, November 2017.
19. *Inference through Sparse Sensing*, TNO sparse sensing, June 14, 2017.
20. *Sparse Sensing for Statistical Inference*, University of Luxembourg, Luxembourg, June 2017.
21. *Graph Sampling for Covariance Estimation*, University of Minnesota, Minneapolis, Minnesota, USA, February 2017.
22. *Stationary Graph Processes and Spectral Estimation*, Information Theory and Applications Workshop (ITA 2017), San Diego, Calfornia, February 2017.
23. *Sparse Sensing for Statistical Inference*, Johannes Kepler University, Linz, Austria, September 2016.
24. *Autoregressive Moving Average Graph Filters*, Graph Signal Processing Workshop, University of Pennsylvania, Philadelphia, Pennsylvania, May 2016.
25. *Sparse Sensing for Statistical Inference*, Instituto Superior Técnico, Lisbon, Portugal, May 2016.
26. *Prediction-Correction Methods for Time-Varying Optimization*, University of Science and Technology of China, Hefei, China, March 2016.
27. *Sparse Sensing for Statistical Inference*, Zhejiang University, Hangzhou, China, March 2016.

28. *Sparse Sensing for Statistical Inference*, Shanghai Jiao Tong University, Shanghai, China, March 2016.
29. *Sparse Sensing for Statistical Inference*, Tongji University, Shanghai, China, March 2016.
30. *Sparse Sensing for Statistical Inference*, Fudan University, Shanghai, China, March 2016.
31. *Sparse Sensing for Statistical Inference: Model-Driven and Data-Driven Paradigms*, Information Theory and Applications Workshop (ITA 2016), San Diego, Calfornia, February 2016.
32. *Prediction-Correction Methods for Time-Varying Convex Optimization*, University of Minnesota, Minneapolis, Minnesota, USA, December 2015.
33. *Sparse Sensing for Statistical Inference*, University of Texas at Austin, Austin, Texas, USA, November 2015.
34. *Sparse Sensing for Statistical Inference*, Flanders Make Seminar, Ghent, Belgium, May 2015.
35. *Compressive Modeling of Stationary Autoregressive Processes*, Information Theory and Applications Workshop (ITA 2015), San Diego, Calfornia, February 2015.
36. *Distributed Time-Varying Optimization*, University of Minnesota, Minneapolis, Minnesota, USA, February 2015.
37. *Sparse Sensing for Statistical Inference*, University of Pennsylvania, Philadelphia, Pennsylvania, USA, January 2015.
38. *Compressive Covariance Sensing*, Carlos III University of Madrid, Madrid, Spain, November 2014.
39. *Sensor Selection for Estimation, Filtering, and Detection*, Carlos III University of Madrid, Madrid, Spain, November 2014.
40. *Sensor Selection for Estimation, Filtering, and Detection*, Invited Speaker at the International Conference on Signal Processing and Communications (SPCOM 2014), Bangalore, India, June 2014.
41. *Compressive Power Spectrum Estimation*, University of Luxembourg, Luxembourg, April 7, 2014
42. *Compression Limits for Random Vectors with Linearly Parameterized Second-Order Statistics*, Information Theory and Applications Workshop (ITA 2014), San Diego, Calfornia, February 14, 2014.
43. *Sparsity-Promoting Sensor Selection for Non-Linear Measurement Models*, University of Minnesota, Minneapolis, Minnesota, USA, February 6 and 7, 2014.
44. *Compressive Power Spectrum Estimation*, Chalmers University of Technology, Gothenburg, Sweden, November 13, 2013.
45. *Trends in signal Processing for Communications and Networking*, European Patent Office (EPO), The Hague, The Netherlands, June 11, 2013.
46. *Space-Varying FIR Filter Design for Non-Uniformly Sampled Seismic Data*, King Fahd University of Petroleum and Minerals (KFUPM), Dhahran, Saudi Arabia, April 15, 2013.
47. *Sparsity-Aware Multi-Source TDOA Localization*, King Abdullah University of Science and Technology (KAUST), Thuwal, Saudi Arabia, April 14, 2013.

48. *Compressive Power Spectrum Sensing*, King Abdullah University of Science and Technology (KAUST), Thuwal, Saudi Arabia, April 13, 2013.
49. *Compressive Covariance Sampling*, Information Theory and Applications Workshop (ITA 2013), San Diego, Calfornia, February 11, 2013.
50. *Compressive Power Spectrum Sensing*, Texas A&M University, College Station, Texas, USA, February 8, 2013.
51. *Trends in Signal Processing for Communications and Networking*, IEEE Benelux Section General Assembly and Meet the Fellows, Eindhoven, The Netherlands, January 31, 2013.
52. *Compressive Power Spectrum Sensing*, University of Pennsylvania, Philadelphia, Pennsylvania, November 27, 2012.
53. *Compressive Power Spectrum Sensing*, University of Minnesota, Minneapolis, Minnesota, November 15, 2012.
54. *UWB Communications, Location, and Signal Processing*, Workshop on Ultra Wideband (UWB) Technology at the Asian Pacific Microwave Conference (APMC 2011), Melbourne, Australia, December 5, 2011.
55. *Trends in Signal Processing for Communications and Networking*, Expert Session at the International Conference on Acoustics, Speech, and Signal Processing (ICASSP 2011), Prague, Czech Republic, May 27, 2011.
56. *Smart Mobile Process Environment Actuators and Sensors - Smart PEAS*, The Sense of Contact, Zeist, The Netherlands, April 7, 2011
57. *Multi-Carrier Acoustic Underwater Communications*, University of Vigo, Vigo, Spain, March 29, 2011.
58. *Localization Using Multi-Dimensional Scaling*, University of Minnesota, Minneapolis, Minnesota, January 20, 2011.
59. *Sparsity-Cognizant Total Least-Squares for Perturbed Compressive Sampling*, University of Southern California, Los Angeles, California, November 4, 2010.
60. *Ultra Wideband Technology for Communications and Localization*, Septentrio Satellite Navigation, Leuven, Belgium, September 3, 2010.
61. *Direction Estimation Using Compressive Sampling*, University of Minnesota, Minneapolis, Minnesota, January 26, 2010.
62. *Energy Efficient Distributed Spectrum Sensing*, University of Minnesota, Minneapolis, Minnesota, January 7, 2010.
63. *Trends in Signal Processing for Wireless Communications*, University of Pisa, Pisa, Italy, October 19, 2009.
64. *Distributed Compressive Wide-Band Spectrum Sensing*, University of Minnesota, Minneapolis, Minnesota, February 18, 2009.
65. *Distributed Compressive Wide-Band Spectrum Sensing*, Information Theory and Applications Workshop (ITA 2009), San Diego, Calfornia, February 13, 2009.
66. *Joint Dynamic Resource Allocation and Waveform Adaptation in Cognitive Radio Networks*, IEEE Signal Processing Chapter Benelux Symposium on Sofware Defined and Cognitive Radios, Brussels, Belgium, December 12, 2008.

67. *Ultra Wideband Localization: The Road to Accuracy and Robustness*, ICT Kring Delft, Delft, The Netherlands, December 1, 2008.
68. *Low-Complexity Channel Equalization and Estimation for Mobile OFDM*, Boğaziçi University, Istanbul, Turkey, November 7, 2007.
69. *Trends in Wireless Communications*, Boğaziçi University, Istanbul, Turkey, November 7, 2007.
70. *Trends in Wireless Communications*, TNO, The Hague, The Netherlands, June 27, 2007.
71. *Low-Complexity Channel Equalization and Estimation for Mobile OFDM*, King Juan Carlos University, Madrid, Spain, June 27, 2006.
72. *Low-Complexity Channel Equalization and Estimation for Mobile OFDM*, Helsinki University of Technology, Helsinki, Finland, April 5, 2006.
73. *Low-Complexity Channel Equalization and Estimation for Mobile OFDM*, Katholieke Universiteit Leuven, Leuven, Belgium, March 24, 2006.
74. *Low-Complexity Channel Equalization and Estimation for Mobile OFDM*, Université Catholique de Louvain, Louvain-la-Neuve, Belgium, February 23, 2006.
75. *Reliable Communications over Rapidly Time-Varying Channels*, Stanford University, Stanford, California, November 12, 2005.
76. *Reliable Communications over Rapidly Time-Varying Channels*, Philips Natlab, Eindhoven, The Netherlands, October 22, 2005.
77. *Equalization of Doubly-Selective Channels*, Philips Natlab, Eindhoven, The Netherlands, January 30, 2004.
78. *Signal Processing Techniques for Communications over Doubly-Selective Channels*, International Workshop on Advanced Algorithms for Structured Problems in Signal Processing, Cadzand, The Netherlands, June 22–28, 2003.
79. *Signal Processing Techniques for Communications over Doubly-Selective Channels*, University of Perugia, Perugia, Italy, June 11, 2003.
80. *Orthogonal Multiple Access over Time- and Frequency-Selective Channels*, Eurecom Institute, Sophia-Antipolis, France, May 26, 2003.
81. *Orthogonal Multiple Access over Time- and Frequency-Selective Channels*, Delft University of Technology, Delft, The Netherlands, March 14, 2003.
82. *Orthogonal Multiple Access over Time- and Frequency-Selective Channels*, Ghent University, Ghent, Belgium, October 7, 2002.
83. *Chip-Interleaving and Block-Spreading for Multiple Access over Time- and Frequency-Selective Channels*, University of Minnesota, Minneapolis, Minnesota, June 6–7, 2002.
84. *Multiple Access Regardless of Time- and Frequency-Selective Channels*, Princeton University, Princeton, NJ, March 19, 2002.
85. *Multiple Access Regardless of Time- and Frequency-Selective Channels*, University of Minnesota, Minneapolis, Minnesota, October 3, 2001.
86. *MUI-Free Receiver for a Shift-Orthogonal Quasi-Synchronous DS-CDMA System Based on Block Spreading in Frequency-Selective Fading*, University of Minnesota, Minneapolis, Minnesota, March 24, 2001.

87. *Adaptive Multi-User Algorithms*, IMEC, Leuven, Belgium, January 20, 1999.
88. *Deterministic Blind Modulation-Induced Source Separation*, DIMES Mini-Symposium: Statistical Array and Signal Processing, Delft University of Technology, Delft, Netherlands, January 11, 1999.
89. *Multi-User Detection in Frequency-Selective Fading Channels*, One-Day Seminar: Digital Signal Processing and Wireless Communications, Katholieke Universiteit Leuven, Leuven, Belgium, May 28, 1999.
90. *Echo Cancellation for DMT-Based Systems*, Alcatel Bell, Antwerp, Belgium, February 12, 1999.
91. *Adaptive Blind Direct Symbol Estimation for Multi-User Communication*, Stanford University, Stanford, California, September 11, 1998.
92. *Equalization Techniques for DMT-Based Systems*, Alcatel Bell, Antwerp, Belgium, July 2, 1998.