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## Education

- Ph.D. in Mathematics, University of Patras/University of Tirana, 1996  
Advisor George Dassios
  - M.S. in Mathematics, University of Tirana, 1990
  - Diploma in Mathematics (honor's program) University of Tirana, 1987
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## Employment

- Rutgers University, USA, September 2015 - on  
Professor, Department of Mathematics, New Brunswick
- Ecole Polytechnique, France, October 2016 - March 2017  
INRIA Visiting Researcher, Centre de Mathématiques Appliquées
- University of Delaware, USA, 2010 - August 2015  
Professor, Department of Mathematical Sciences
- Ecole Polytechnique, France, Fall 2011  
CNRS Visiting Researcher, Centre de Mathématiques Appliquées
- University of Delaware, USA, 2006 - 2010  
Associate Professor, Department of Mathematical Sciences
- University of Delaware, USA, 2002 - 2006  
Assistant Professor, Department of Mathematical Sciences
- University of Delaware, USA, 2000 - 2002  
GIG NSF postdoctoral researcher, Department of Mathematical Sciences

- University of Stuttgart, Germany, 1998 - 2000  
Alexander von Humboldt Research Fellow, Mathematics Institute A/6
  - University of Tirana, Albania, 1996 - 1998 Lecturer, Faculty of Natural Sciences,  
Department of Mathematics
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## Awards and Honors

1. Plenary Speaker, 9th Applied Inverse Problems, Hangzhou, May 29 - June 2, 2017.
  2. Simons Fellow in Mathematics – 2016.
  3. Invited Lecture at Collège de France, Paris – December 2, 2011.
  4. Alexander von Humboldt Research Fellow – 1998-2000, 2005, 2007.
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## Research Grants - Principal Investigator

1. AFOSR Grants, continuously supported during 2002-2019.
  2. NSF Grants, 2011-2014, 2015-2018.
  3. TEMPUS European Community Grant, 1996-1997.
  4. COPERNICUS Research Scholar: European Community Grant, 1993-1994.
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## Active Editorial Boards

- SIAM Journal on Applied Mathematics, since January 2016
- Inverse Problems, since January 2015
- Inverse Problems and Imaging, since January 2014
- Journal of Integral Equations and Applications, since 2009

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## Advisement

- Past Postdoc
    - Jingni Xiao, since August 2018 - current
    - Thi Phong Nguyen, since January 2018 - current
    - Lihan Liu, 2015-2016
    - Andriy Synyavskyy, 2012-2013 – Fulbright Fellow
  
  - Past Graduate Students
    - Heejin Lee, current student
    - Irene De Teresa Trueba, graduated in 2017 - next position researcher at the University of Heidelberg, Germany.
    - Jake Rezac, graduated in 2017 - next position postdoc at the University of Colorado, Boulder.
    - Shizu Meng, graduated in 2016 - next position IMA postdoc, University of Minnesota (for one year) continues to postdoc at University of Michigan, Ann Arbor.
    - Isaac Harris, graduated in 2015 - next position postdoc at Texas A&M University, continues to Tenure track assistant professor at Purdue University.
    - Besiana Hamzallari, graduated in 2015 - tenured lecturer at the University of Tirana.
    - Noam Zeev, PhD, graduated in 2008 - next position tenure track assistant professor at Old Dominion University.
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## Publications *(most recent first)*

### Books

1. F. Cakoni, D. Colton and H. Haddar, *Inverse Scattering Theory and Transmission Eigenvalues*, CBMS-NSF Regional Conference Series in Applied Mathematics, **88**, SIAM Publications, 2016.
2. F. Cakoni and D. Colton, *A Qualitative Approach to Inverse Scattering Theory*, Springer, Applied Mathematical Series, Vol. **188**, 2014.
3. F. Cakoni, D. Colton and P. Monk, *The Linear Sampling Method in Inverse Electromagnetic Scattering*, CBMS-NSF Regional Conference Series in Applied Mathematics **80**, SIAM Publications, 2011.
4. F. Cakoni and D. Colton, *Qualitative Methods in Inverse Scattering Theory*, Springer, Series on Interaction of Mechanics and Mathematics, 2006.

### Research Papers in Refereed Journals

5. F. Cakoni, H. Haddar and T.P. Nguyen, New interior transmission problem applied to a single Floquet-Bloch mode imaging of local perturbations in periodic media, (submitted).
6. F. Cakoni, P. Monk and V. Selags, Analysis of the linear sampling method for imaging penetrable obstacles in the time domain, (submitted).
7. F. Cakoni and S. Chanillo, Transmission eigenvalues and the Riemann zeta function in scattering theory for automorphic forms on Fuchsian groups of type I, (submitted).
8. F. Cakoni, S. Moskow and S. Rome, Asymptotic expansions of transmission eigenvalues for small perturbation of media with generally signed contrast, *Inverse Problems and Imaging* **12**, 971-992, (2018).
9. F. Cakoni, I. De Teresa and P. Monk, Nondestructive testing of delaminated interfaces between two materials using electromagnetic interrogation, *Inverse Problems*, **34** (2018).
10. F. Cakoni and V. Kovtunenکو, Topological optimality condition for the identification of the center of an inhomogeneity, *Inverse Problems*, **34**, 035009 (2018).

11. F. Cakoni, O. Ivanyshyn-Yaman, R. Kress and F. Le Louer, A boundary integral equations for the transmission eigenvalue problem for Maxwell's equations, *Math. Meth. Appl. Sci.* **41**, 1316-1330 (2018).
12. L. Audibert, F. Cakoni and H. Haddar, New sets of eigenvalues in inverse scattering for inhomogeneous media and their determination from scattering data, *Inverse Problems* **33**, 125011 (2017).
13. F. Cakoni, I. Harris and S. Moskow, The imaging of small perturbations in an anisotropic media, *Computers and Mathematics with Applications* **74**, 2769-2783 (2017).
14. F. Cakoni, D. Colton and P. Monk, Qualitative methods in inverse electromagnetic scattering theory, *IEEE Antennas and Propagation Magazine* **24-33**, October Issue (2017).
15. F. Cakoni and J. Rezac, Direct imaging of small scatterers using reduced time dependent data, *J. Comp. Physics*, **338** 371-387 (2017).
16. F. Cakoni and R. Kress, A boundary integral equation method for the transmission eigenvalue problem, *Applicable Analysis*, **96**, 23-38 (2017).
17. F. Cakoni, I. De Teresa, H. Haddar and P. Monk, Nondestructive testing of the delaminated interface between two materials, *SIAM J. Appl. Math.*, **76**, no 6, 2306-2332, (2016).
18. F. Cakoni D. Colton and J. Rezac, The Born transmission eigenvalue problem, *Inverse Problems* **32** paper 105014 (2016).
19. F. Cakoni, D. Colton, S. Meng and P. Monk, Steklov eigenvalues in inverse scattering, *SIAM J. Appl. Math.* **76**, No 4, 1737-1763 (2016).
20. F. Cakoni, B. Guzina and S. Moskow, On the homogenization of a transmission problem in scattering theory for highly oscillating media, *SIAM J. Math. Analysis*, **48**, no 4, 2532-2560, (2016).
21. F. Cakoni, H. Haddar and S. Meng, Boundary integral equations for the transmission eigenvalue problem for Maxwell's equations, *J. Int. Eqns. Appl.*, **27**, no 3, 377-406, (2015).
22. F. Cakoni, H. Haddar and H. Harris, Homogenization of the transmission eigenvalue problem for periodic media and application to the inverse problem, *Inverse Problems and Imaging*, **9**, no 4, 1025 - 1049, (2015).

23. F. Cakoni, S. Moskow and S. Rome, Perturbations of transmission eigenvalues for inhomogeneous media in the presence of small inclusions, *Inverse Problems and Imaging*, **9**, no 3, 725 - 748, (2015).
24. F. Cakoni and I. Harris, The factorization method for a defective region in an anisotropic material, *Inverse Problems*, **31**, 025002 (2015).
25. F. Cakoni, N. Chaulet and H. Haddar, Asymptotic analysis of the transmission eigenvalue problem for a Dirichlet obstacle coated by a thin layer of non-absorbing media, *IMA J. Appl. Math*, **80**, 1063-1098, (2015).
26. F. Cakoni, Y. Hu and R. Kress, Simultaneous reconstruction of shape and generalized impedance functions in electrostatic imaging, *Inverse Problems*, **30**, 105010 (2014)
27. F. Cakoni, P. Monk and J. Sun, Error analysis of the finite element approximation of transmission eigenvalues, *Computational Methods in Applied Mathematics*, **14**, 419-427, (2014).
28. Y. Hu, F. Cakoni and J. Liu, The inverse problem for a partially coated cavity with interior measurements, *Applicable Analysis*, **93**, no 5, 936-956 (2014).
29. S. Meng, H. Haddar and F. Cakoni, The factorization method for a cavity in an inhomogeneous medium", *Inverse Problems*, **30**, paper 045008 (2014).
30. I. Harris, F. Cakoni and J. Sun, Transmission eigenvalues and non-destructive testing of anisotropic magnetic materials with voids, *Inverse Problems*, **30**, paper 035016 (2014).
31. F. Cakoni, D. Colton and S. Meng, The inverse scattering problem for a penetrable cavity with internal measurements, *AMS Contemporary Mathematics*, **615**, 71-88 (2014).
32. F. Cakoni, N. Chaulet and H. Haddar, On the asymptotic of a Robin eigenvalue problem, *C. R. Math. Acad. Sci. Paris, Ser. I*, **351** 517-521, (2013).
33. F. Cakoni and S. Moskow, Asymptotic expansions for transmission eigenvalues for media with small inhomogeneities, *Inverse Problems*, **29**, 104014 (2013).
34. C. Bellis, M. Bonnet and F. Cakoni, Acoustic inverse scattering using topological derivative of far-field measurements-based  $L^2$  cost functionals, *Inverse Problems*, **29**, 075012 (2013).

35. F. Cakoni and R. Kress, Integral equation methods for the inverse obstacle problem with generalized impedance boundary condition, *Inverse Problems*, **29**, 015005, (2013).
36. C. Bellis, F. Cakoni and B. Guzina, Nature of the transmission eigenvalue spectrum for elastic bodies, *IMA Journal of Applied Mathematics*, **78** No 5, 895-923, (2013).
37. F. Cakoni, A. Cossonniere and H. Haddar, Transmission eigenvalues for inhomogeneous media containing obstacles, *Inverse Problems and Imaging* **6**, No 3, 373-398 (2012).
38. F. Cakoni, D. Colton and H. Haddar, The interior transmission eigenvalue problem for absorbing media, *Inverse Problems*, **28**, No 4, paper 045005, (2012).
39. F. Cakoni, M. Di Cristo and J. Sun, A multistep reciprocity gap functional method for the inverse problem in a multi-layered medium, *Complex Variables and Elliptic Equations* **57**, Nos 2-4, 261-276, (2012)
40. F. Cakoni and H. Haddar, Transmission Eigenvalues in Inverse Scattering Theory, in *Inside Out 2*, G. Uhlmann Ed. MSRI Publications, Volume 60, 527-578, (2012).
41. F. Zheng, F. Cakoni and J. Sun, An inverse electromagnetic scattering problem for cavity, *Inverse Problems*, **27**, No 12, paper 125002, (2011).
42. H. Qin and F. Cakoni, Nonlinear integral equations for shape reconstruction in the inverse interior scattering problem, *Inverse Problems*, **27**, No 3, paper 035005, (2011).
43. F. Cakoni, R. Kress and C. Schuft, Simultaneous reconstruction of shape and impedance in corrosion detection, *Methods and Applications of Analysis*, **17**, No 4, 357-378 (2010).
44. F. Cakoni and P. Monk, The determination of anisotropic surface impedance in electromagnetic scattering, *Methods and Applications of Analysis*, **17**, No 4, 379-394 (2010).
45. B. Guzina, F. Cakoni and C. Bellis, On multi-frequency obstacle reconstruction via linear sampling method, *Inverse Problems*, **26**, No 12, paper 125005, (2010).
46. F. Cakoni, D. Colton and D. Gintides, The interior transmission eigenvalue problem, *SIAM J. Math. Analysis*, **42**, no 6, 2912-2921, (2010).

47. F. Cakoni, R. Kress and C. Schuft, Integral equations for shape and impedance reconstruction in corrosion detection, *Inverse Problems*, **26**, No 9, paper 095012 (2010).
48. F. Cakoni and A. Kirsch, On the interior transmission eigenvalue problem, *Int. Jour of Comp. Sci. Math*, **3**, No 1-2, 142-167 (2010).
49. F. Cakoni, D. Colton and P. Monk, The determination of boundary coefficients from far field measurements, *J. Integral Equations and Applications*, **42**, No 2, 167-191 (2010).
50. F. Cakoni, D. Colton, P. Monk and J. Sun, The inverse electromagnetic scattering problem for anisotropic media, *Inverse Problems*, **26**, No 7, paper 074004 (2010).
51. F. Cakoni, G. Gintides and H. Haddar, The existence of an infinite discrete set of transmission eigenvalues, *SIAM Journal of Mathematical Analysis*, **42**, No 1, 237-255 (2010).“
52. F. Cakoni, D. Colton and H. Haddar, On the determination of Dirichlet and transmission eigenvalues from far field data, *C. R. Math. Acad. Sci. Paris, Ser. I*, **348**, No 7-8, 379-383 (2010).
53. F. Cakoni, D. Colton and H. Haddar, The interior transmission problem for regions with cavities, *SIAM Journal of Mathematical Analysis* , **42**, No 1, 145-162 (2010).
54. F. Cakoni, G. Nakamura, M. Sini and N. Zeev, The identification of a partially coated dielectric medium from far field measurements, *Applicable Analysis*, **89**, No 1, 29-47 (2010).
55. F. Cakoni and D. Gintides, New results on transmission eigenvalues, *Inverse Problems and Imaging* **4**, No 1, 39-48 (2010).
56. F. Cakoni and H. Haddar, On the existence of transmission eigenvalues in an inhomogeneous medium, *Applicable Analysis*, **88** no 4, 475-493 (2009).
57. F. Cakoni, D. Colton and H. Haddar, The computation of lower bounds for the norm of the index of refraction in an anisotropic media, *J. Integral Equations and Applications*, **21** 203-227 (2009).
58. N. Zeev and F. Cakoni, The identification of thin dielectric objects from far field and near field scattering data, *SIAM J. Appl. Math.*, **69** 1024-1042 (2009).



59. F. Cakoni, D. Colton and M. Cayoren, Transmission eigenvalues and the nondestructive testing of dielectrics, *Inverse Problems*, **26**, paper 065016 (2008).
60. F. Cakoni and D. Colton, Inequalities in inverse scattering theory, *J. Inverse and Ill-Posed Problems*, **15** 483-491 (2007).
61. F. Cakoni and H. Haddar, A variational approach for the solution of electromagnetic interior transmission problem for anisotropic media, *Inverse Problems and Imaging* **1**, No 3, 443-456 (2007).
62. F. Cakoni, D. Colton and P. Monk, On the use of transmission eigenvalues to estimate the index of refraction from far field data, *Inverse Problems*, **23** 507-522 (2007).
63. F. Cakoni and R. Kress, Integral equations for inverse problems in corrosion detection from partial Cauchy data, *Inverse Problems and Imaging*, **1**, No 2, 299-245 (2007).
64. F. Cakoni and H. Haddar, Identification of partially coated anisotropic buried objects using electromagnetic Cauchy data, *J. Integral Equations and Applications*, **19**, No 3, 361-391 (2007).
65. F. Cakoni, D. Colton and P. Monk, The inverse electromagnetic scattering problem for a partially coated dielectric, *J. Comput. Appl. Math.* **204**, 256-267 (2007).
66. F. Cakoni, Recent developments in the qualitative approach to inverse electromagnetic scattering theory, *J. Comput. Appl. Math.* **204**, 242-255 (2007).
67. F. Cakoni and D. Colton, Target identification of buried coated objects, *J. Comput. Appl. Math.*, **25** No 2-3, 269-288 (2006).
68. F. Cakoni, MB. Fares and H. Haddar, Analysis of two linear sampling methods applied to electromagnetic imaging of buried objects, *Inverse Problems*, **22**, 845-867 (2006).
69. F. Cakoni, G. Hsiao and W. Wendland, Boundary integral equation method for a mixed boundary value problem for the biharmonic equation, *Complex Variables*, **50**, 681-696 (2005).
70. F. Cakoni and D. Colton, Open problems in the qualitative approach to inverse electromagnetic scattering theory, *European Jour. Appl. Math.*, **16**, 1-15 (2005).

71. F. Cakoni, D. Colton and P. Monk, The determination of the surface conductivity of a partially coated dielectric, *SIAM J. Appl. Math.*, **65**, No.3, 767-789 (2005).
72. F. Cakoni and E. Darrigrand, The inverse electromagnetic scattering problem for a mixed boundary value problem for screens, *J. Comput. Appl. Math.*, **174**, 251-269 (2005).
73. F. Cakoni, D. Colton and P. Monk, The electromagnetic inverse scattering problem for partially coated Lipschitz Domains, *Proc. Royal. Soc. Edinburgh*, **134A**, 661-682 (2004).
74. F. Cakoni and D. Colton, A target signature for distinguishing perfect conductors from anisotropic media of finite conductivity, *Math. Comp. Sim.* **66**, No 4-5, 325-335 (2004).
75. F. Cakoni and D. Colton, The determination of the surface impedance of a partially coated obstacle from far field data, *SIAM J. Appl. Math.*, **64**, 709-723 (2004).
76. F. Cakoni and D. Colton, A uniqueness theorem for an inverse electromagnetic scattering problem in inhomogeneous anisotropic media, *Proc. Edinburgh Math. Soc.*, **46**, 293-314 (2003).
77. F. Cakoni, D. Colton and E. Darrigrand, The inverse electromagnetic scattering problem for screens, *Inverse Problems*, **19**, 627-642 (2003).
78. F. Cakoni and D. Colton, The linear sampling method for cracks, *Inverse Problems*, **19**, 279-295 (2003).
79. F. Cakoni and D. Colton, On the mathematical basis of the linear sampling method, *Georgian Mathematical Journal, Kupradze's special issue*, **10**, No 3, 411-425 (2003).
80. F. Cakoni and D. Colton, Combined far field operators in electromagnetic inverse scattering theory, *Math. Meth. Appl. Sci.*, **26**, No. 5, 413-429 (2003).
81. M. Bochniak and F. Cakoni, Domain sensitivity analysis of the elastic far-field patterns in scattering from nonsmooth obstacles, *J. Math. Anal. Appl.*, **272**, No.1, 318-334 (2002).
82. F. Cakoni, D. Colton and H. Haddar, The linear sampling method for anisotropic media, *J. Comput. Appl. Math.*, **146**, 285-299 (2002).

83. M. Bochniak and F. Cakoni, Domain sensitivity analysis of the acoustic far-field pattern, *Math. Meth. Appl. Sci.*, **25**, 595-613 (2002).
84. F. Cakoni, D. Colton and P. Monk, The direct and inverse scattering problems for partially coated obstacles, *Inverse Problems*, **17**, 1997-2015 (2001).
85. F. Cakoni, Boundary integral method for thermoelastic screen scattering problem in  $R^3$ , *Math. Meth. Appl. Sci.*, **23**, 441-466 (2000).
86. F. Cakoni and G. Dassios, The Atkinson-Wilcox theorem in thermoelasticity, *Quart. Appl. Math.*, **LVII**, N.4, 711-795 (1999).
87. F. Cakoni and G. Dassios, The coated thermoelastic body within a low-frequency elastodynamic field, *Int. J. Ingg. Sci.*, **36**, 1815-1838 (1998).

## Refereed Conference Proceedings and Other Publications

88. F. Cakoni, H. Haddar and S. Meng, A boundary integral equation approach for the transmission eigenvalue problem for Maxwell's equations, *Proceedings of the 12th International Conference on Mathematical and Numerical Aspects of Waves*, (2015).
89. F. Cakoni, B. Guzina and S. Moskow, On the homogenization of a transmission problem, *Proceedings of the 12th International Conference on Mathematical and Numerical Aspects of Waves*, (2015).
90. F. Cakoni and H. Haddar, Transmission Eigenvalues: Editorial, *Inverse Problems*, **29**, paper 100201 (2013).
91. F. Cakoni and S. Moskow, Perturbation of transmission eigenvalues due to small inhomogeneities, *Proceedings of the 11th International Conference on Mathematical and Numerical Aspects of Waves*, 333-335, (2013).
92. F. Cakoni, N. Chaulet and H. Haddar, Asymptotic analysis of transmission eigenvalues for perfect conducting body coated by a thin dielectric layer, *Proceedings of the 11th International Conference on Mathematical and Numerical Aspects of Waves*, 343-345, (2013).
93. F. Cakoni and D. Colton Inverse Problems and Imaging: Past, Present and Future *UNESCO-EOLSS On-line* (2102).

94. B. Guzina, F. Cakoni and C. Bellis, Multi-tonal reconstruction of penetrable obstacles by way of the linear sampling method, Proceedings of the 8th International Conference on Structural Dynamics, Book Series: EURO-DYN-International Conference on Structural Dynamics, 2594-2601, (2011).
95. F. Cakoni, On the existence of an infinite set of transmission eigenvalues, *Albanian Journal of Natural and Technical Sciences*, **28**, 3-14 (2010).
96. F. Cakoni, D. Colton and D. Gintides, The interior transmission problem, *Mathematical Methods in Scattering Theory and Biomedical Engineering*, World Scientific Publishing, 368-380 (2010).
97. F. Cakoni and D. Colton The inverse scattering problem for anisotropic media, *Mathematical Methods in Scattering Theory and Biomedical Engineering*, World Scientific Publishing, 21-31 (2008).
98. F. Cakoni, D. Colton and H. Haddar Inverse scattering for anisotropic media, in *Proceedings of the 8th International Conference on Mathematical and Numerical Aspects of Waves*, University of Reading, 150-152 (2007).
99. F. Cakoni and P. Monk, The 3D inverse electromagnetic scattering problem for a coated dielectric' *Numerical Mathematics and Advance Applications* Springer, 119-135 (2006).
100. F. Cakoni and H. Haddar, A new linear sampling method for the electromagnetic imaging of buried objects, *Mathematical Methods in Scattering Theory and Biomedical Engineering* World Scientific Publishing, 19-30 (2006).
101. F. Cakoni and E. Darrigrand, Linear sampling method for the inverse electromagnetic scattering problem for screens, *Proc. Appl. Math. Mech.* **5**, 645-646 (2005).
102. F. Cakoni and D. Colton, Mixed boundary value problems in inverse electromagnetic scattering, *Advances in Scattering and Biomedical Engineering*, World Scientific Publishing, 60-70 (2004).
103. F. Cakoni and H. Haddar, Interior transmission problem for anisotropic media, *Mathematical and Numerical Aspects of Wave Propagation*, Springer Verlag, 613-618 (2003).
104. F. Cakoni and G. Hsiao, Mathematical model of the interaction problem between electromagnetic field and an elastic body, *Acoustics, Mechanics, and Related*

*Topics of Mathematical Analysis*, 48-54 (2003).

105. M. Bochniak and F. Cakoni, Domain sensitivity analysis of the elastic far-field patterns. Scattering from nonsmooth obstacles, *IUTAM Symposium on Diffraction and Scattering in Fluid Mechanics and Elasticity*, Kluwer Academic Publishers, 217-226 (2002).
106. F.Cakoni and H.Haddar, The linear sampling method for anisotropic media: Part 2, 2001/26, MSRI Berkeley, California, (2001).
107. M. Bochniak and F. Cakoni, Domain sensitivity analysis for acoustic scattering problems, *Mathematical and Numerical Aspects of Wave Propagation*, SIAM Publications, Philadelphia, 450-454 (2000).
108. M. Bochniak and F. Cakoni, The method of adjoint problems for the domain sensitivity analysis of the acoustic far-field pattern, (3D domains with smooth edges), 2000/13, Sonderforschungsbereich 404, Mathematisches Institut A, University of Stuttgart, (2000).
109. F. Cakoni, Dense sets and far-field patterns for the vector thermoelastic equation, *Equadiff 9 Proceedings*, 73-82 (1998).

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## Invited Presentations - since 2010

### Invited Plenary Speaker

1. Frontiers in Applied and Computational Mathematics, NJIT, New Jersey, USA, August 24-26, 2018.
2. Spectral Geometry: Theory, Numerical Analysis and Applications, Banff (BIRS), Canada, July 1-6, 2018.
3. Reconstruction Methods in Inverse Problems, Istituto Nazionale di Alta Matematica, Rome, Italy, May 28-June 01, 2018.
4. AIM Workshop on Steklov Eigenproblems, American Institute of Mathematics, San Jose, California, USA, April 30 - May 4, 2018.

5. IAS Workshop on Inverse Problems, Imaging and Partial Differential Equations, Institute for Advanced Study, The Hong Kong University of Science and Technology, Hong Kong, March 12-16, 2018.
6. International Conference on Recent Advances in Computational and Applied Mathematics, Wuhan University, China December 14-17, 2017.
7. 9th Applied Inverse Problems, Hangzhou, China May 29 - June 2, 2017
8. Optical Imaging and Inverse Problems, IMA, University of Minnesota, USA February 13 - 17, 2017.
9. IAS Workshop on Inverse Problems, Imaging and Partial Differential Equations, Institute for Advanced Study, The Hong Kong University of Science and Technology, Hong Kong, December 5-9, 2016.
10. London Mathematical Society – EPSRC Durham Symposium on Mathematical and Computational Aspects of Maxwell's Equations, Durham, UK, July 11- 21, 2016.
11. Franco-German Summer School, Inverse Problems for Waves, Ecole Polytechnique, Paris, France, August 25-28, 2015 (I gave a mini-course on inverse scattering).
12. Inverse Problems in Wave Propagation, IWaP 2015, University of Bremen, Germany April 7-10, 2015
13. Workshop on Applications in Inverse Problems, Università degli Studi di Milano, January 26-29, 2015 (I gave a mini-course of 6 lectures).
14. IPTA 2014, Inverse Problems - from Theory to Applications, Bristol, UK, August 26-28, 2014 an international conference celebrating 30 years of Inverse Problems (plenary speaker).
15. Distinguished Lectures on Inverse Problems, International conference August 4-8, 2014 at the University of Helsinki, Finland.
16. NSF-CBMS Conference on Inverse Scattering and Transmission Eigenvalues, University of Texas at Arlington, May 27-31, 2014 (I gave a series of three lectures).
17. Journées Singulières Augmentées, Rennes, France, August 26-30, 2013.
18. Numerical Analysis and Inverse Problems, Michigan Technological University, USA, August 12-14, 2013.

19. Inverse Problem: Scattering, Tomography and Parameter Identification, Bad Herrenalb, Germany, April 7-11, 2013.
20. Computational Inverse Problems, Oberwolfach, Germany, October 21-27, 2012.
21. Wave Propagation in Complex Media and Applications, Heraklion, Crete, Greece, May 7-11, 2012
22. Inverse Problems, Control Shape and Optimization, PICO2012, Ecole Polytechnique, Palaiseau, France, April 2-4, 2012.
23. Inverse problems for Partial Differential Equations, Oberwolfach, Germany, February 19-25, 2012.
24. Challenges in Synthetic Aperture Radar, IPAM, USLA, Los Angeles, USA, February 6-10, 2012.
25. Invited Lecture at Collège de France, Paris – December 2, 2011.
26. Workshop on Numerical Electromagnetics and Industrial Applications, University of Santiago de Compostela, Santiago de Compostela, October 25-28, 2011.
27. Inverse Problems in Analysis and Geometry, Isaac Newton Institute for Mathematical Sciences, University of Cambridge, UK, August 1-5, 2011.
28. Workshop on Future Direction in Applied Mathematics, NC State University, March 10-11, 2011.
29. Inverse Problems: Theory and Applications, MSRI, Berkeley, November 8-12, 2010.

## **Colloquium and Invited Minisymposium Talks**

30. Invited talks at a minisymposium at the Conference on Mathematics of Wave Phenomena, KIT, Germany, July 23-27, 2018.
31. Invited talks at a minisymposium at the Inverse Problems: Modeling and Simulation, Malta, May 21-25, 2018.
32. Invited talks at two minisymposia at the AIP Conference, Hangzhou, China May 29 - June 2, 2017.
33. Colloquium at Penn State University, State College, April 17, 2017.
34. Colloquium at Institut de Mathématique de Bordeaux, France, March 9, 2017.

35. Colloquium at Institut für Numerische und Angewandte Mathematik, University of Göttingen, Germany, January 24, 2017.
36. Colloquium at Fakultät für Mathematik, Karlsruhe Institute of Technology, Germany, January 19, 2017.
37. Colloquium at Ecole Polytechnique Federal de Lausanne, Switzerland, January 13, 2017.
38. Colloquium at CMAP, Ecole Polytechnique, Paris, France, January 10, 2017.
39. Colloquium at the Chinese University of Hong Kong, Hong Kong, December 9, 2016.
40. Colloquium at the University of Versailles, Versailles, December 1, 2016.
41. Invited talk in the Inverse Problems workshop at the Durham Symposium on Mathematical and Computational Aspects of Maxwell's Equations, Durham, UK, July 11- 21, 2016.
42. Invited talk at NSF-SIAM Workshop on Optics and Photonics, Boston, Massachusetts, USA, July 11, 2016.
43. Colloquium at Southeast University, Nanjing, China, June 1, 2016.
44. Invited talks in two minisymposia at AIP Conference, Helsinki, Finland, May 25-29, 2015.
45. Colloquium at NJIT, Newark, September 19, 2014.
46. Colloquium at Clemson University, Clemson, April 22, 2014.
47. Colloquium at the University of Minnesota, Minneapolis, Dept. Civil Engineering, March 22, 2014.
48. Colloquium at Purdue University, Lafayette, November 7, 2013.
49. Colloquium at Rutgers University, New Brunswick, April 26, 2013.
50. Colloquium at Georgetown University, Washington DC, October 5, 2012.
51. Invited talk at Conference on Inverse Problems in Honor of Gunther Uhlmann, University of California, Irvine, June 18-22, 2012.
52. Invited talk at SIAM Conference on Imaging Science, Philadelphia, May 20-22, 2012.



53. Invited talk at FACM 1012, Frontiers in Applied and Computational Mathematics, NJIT, New Jersey, May 18-20, 2012
54. Colloquium at Temple University, Philadelphia, April 23, 2012.
55. Colloquium at Columbia University, New York City, March 20, 2012.
56. Colloquium at Drexel University, Philadelphia, March 6, 2012.
57. Colloquium at CMAP, Ecole Polytechnique December 6, 2011.
58. Colloquium at POEMS, INRIA, Rocquencourt, Paris October 20, 2011.
59. Invited talk at a minisymposium in AIP Conference, Texas A&M University, May 23-27, 2011.
60. Colloquium at Purdue University, Department of Mathematics, April 29, 2011.
61. Colloquium at Wright State University, Department of Mathematics, Ohio, January 14, 2011.
62. Colloquium at Case Western Reserve University, Department of Mathematics, Ohio, October 29, 2010.
63. QNDE Conference (keynote speaker in the Electromagnetic Inverse Scattering session), San Diego California, July 18-23, 2010.
64. IV European Conference on Computational Mechanics, Paris, France, May 16-21, 2010.
65. SIAM Conference on Imaging Science, Chicago, April 12-14, 2010.
66. Colloquium at the University of Minnesota, Department of Civil Engineering, January 29, 2010.

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## Short Academic Visits

- IMA, University of Minnesota, Optical Imaging and Inverse Problems program, April 23 - May 22, 2017 Visiting Researcher
- University of Göttingen, Germany, January 16-31, 2017  
Visiting Researcher
- Karlsruhe Institute of Technology, Germany, January 3-15, 2017  
Visiting Researcher

- Southeast University, Nanjing, China, May 2016  
Visiting Researcher
- University of Minnesota, USA, May 2015  
MTS Visiting Professor of Geomechanics
- University of Minnesota, USA, March 2014  
MTS Visiting Professor of Geomechanics
- Wright-Patterson Air Force Base Dayton, Ohio, January 2011
- Mathematical Sciences Research Institute (MSRI), Berkley, August, November 2010  
Invited Research Member
- University of Minnesota, USA, January 2010  
MTS Visiting Professor of Geomechanics
- University of Tokyo, Japan, January 2009  
Visiting Researcher
- DeFI Project, CMAP, Ecole Polytechnique, Paris, France, November 2007, August 2008, April 2009, June 2009, April 2010, May 2010, November 2010, April 2011, June 2011, November 2012, November 2014, March 2016  
Visiting Researcher
- University of Göttingen and University of Karlsruhe, Germany, June-July 2007  
Alexander von Humboldt Fellow
- Politecnico di Milano, Italy, December 2006  
Visiting Researcher
- INRIA, Rocquencourt Paris, France, June 2004, April 2005, November 2006  
Visiting Researcher
- University of Göttingen, Germany, March - April 2005  
Alexander von Humboldt Fellow
- University of Rennes, France, June - July, 2004  
Visiting Professor (Maitre de Conference), IRMAR
- Mathematical Sciences Research Institute (MSRI), Berkley, August 2001  
Invited Visitor

- University of Bielefeld, Germany, August - November 1996  
DAAD Research Fellow.
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## Recent Professional Activities

- Director of the partner team (QUASI) with DeFI-INRIA team at CMAP, Ecole Polytechnique, Paris, France.
- Member of AWM Student Chapter Committee, from 2017
- On the scientific committee of the Waves 2017 Conference, University of Minnesota, Minneapolis, May 15-19, 2017.
- Organizer of the meeting Theory and Numerics of Inverse Scattering Problems, Oberwolfach, Germany, September 18-24, 2016.
- Organizer of the meeting Numerical Analysis and Inverse Problems, Houghton, Michigan, August 15-19, 2016.
- Scientific expert in the Scientific Advisory Board of the Finnish centre of excellence (CoE) in Inverse Problems, 2012-2017.
- Member of the Calderon Prize International Committee for the AIP 2015, Applied Inverse Problems, Helsinki, Finland, May 25-29, 2015.
- Organizer of the IMA Hot Topics Workshop, Hydraulic Fracturing: From Modeling and Simulation to Reconstruction and Characterization, University of Minnesota, May 11-14, 2015.
- On the scientific committee of the Waves 2015 Conference, Karlsruhe, Germany, July 20-24, 2015.
- Organizer of a special session at the 10th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Madrid, Spain, July 7-11, 2014.
- Humboldt funded participant in the XVIth Meeting of European Women in Mathematics, Bonn, Germany, September 2-6, 2013.
- Chair of the organizing committee of the International Conference on Novel Directions in Inverse Scattering Honoring David Colton, July 29 - August 2, 2013, University of Delaware, Newark.

- On the scientific committee of the Waves 2013 Conference, Gammarth, Tunisia, June 3-7, 2013.
- On the scientific committee of the Waves 2011 Conference, Vancouver, Canada, June 25-29, 2011.
- Organizer of a minisymposium at the Conference on Applied Inverse Problems, Texas A&M, May 23-27, 2011.
- Organizer of the International Workshop on Inverse Problems for Waves: Methods and Applications, Ecole Polytechnique, Paris, France, March 29-30, 2010.
- Organizer of a minisymposium at the Conference on Applied Inverse Problems, Vienna, Austria, July 20-24, 2009.
- Organizer of IMA Graduate Summer School on Inverse Problems, June 15 - July 3, 2009, University of Delaware, USA.
- On the scientific committee of the Waves 2009 Conference, Pau, France June 15-19, 2009.
- Organizing the International Conference on Inverse Scattering Problems, May 8-10, 2008, Sestri Levante, Italy.
- Organizer of a minisymposium at the Conference on Applied Inverse Problems 2007, June 25-29, 2007, British Columbia, Canada.
- NSF panelist (several times).
- Member of AMS, SIAM and AWM.