

Christine De Mol

Born in Brussels (Belgium) on April 23, 1954
Belgian citizenship

AFFILIATION AND PROFESSIONAL ADDRESS

Department of Mathematics and
ECARES (European Center for Advanced Research in Economics and Statistics)
Université Libre de Bruxelles (ULB)
Campus Plaine C.P. 217
Boulevard du Triomphe
B - 1050 Bruxelles (Belgium)

Phone : 32 - 2 - 650 5573
E-mail : demol@ulb.ac.be

EDUCATION

At the Brussels Free University (Université Libre de Bruxelles) :

- B.Sc. in Physics ("Licence en sciences physiques") (1975)
- Ph.D. in Physics (1979)
- Agrégation de l'enseignement supérieur (Habilitation thesis) (1992)

(All degrees were obtained with the highest possible honors)

PRESENT POSITION

Professor full-time at the Free University of Brussels (ULB) (since January 1998)

PREVIOUS POSITIONS

Full-time research positions with the Belgian National Fund for Scientific Research (F.N.R.S.):

Temporary positions:

- Stagiaire de recherches (1975-76)
- Aspirant (1976-79)
- Chargé de recherches (1979-81)

Permanent positions:

- Chercheur qualifié (1981-92)
- Maître de recherches (1992-96)
- Directeur de recherches (1996-98) (since 1998, honorary position)

VISITING POSITIONS

- Visiting Fellow and consultant, Queen Elizabeth College, University of London (U.K.) (1980-83)
- Visiting Professor, University of Rome I "La Sapienza" (Italy) (May-June 1983)
- Visiting Associate Professor, University of Montpellier (France) (January and April 1986)
- Visiting Research Fellow at the University of Paris-Sud (Orsay) (June-July 1992)
- Associate Research Director of the C.N.R.S. at the University of Paris-Sud (Orsay) (May-July 1993)
- Visiting Professor, University of Montpellier (France) (April 1996)
- Visiting Professor, University of Genoa (Italy) (February-July 2006)
- Invited Participant, Hausdorff Research Institute for Mathematics, Special Trimester on "Mathematics of Signal Processing", University of Bonn (February-March 2016)
- Invited Lecturer at the University of St. Gallen (Switzerland) for the course "Statistical Learning and Applications" (June 2017 and June 2018)
- Invited Lecturer at the University of Zurich (Switzerland) for the course "Statistical Learning" (November 2018)

RESEARCH INTERESTS

Applied Mathematics and Mathematical Physics :

inverse and ill-posed problems,
inverse imaging problems in optics and electromagnetism,
inverse scattering,
regularization theory and sparsity-enforcing regularization methods,
wavelets and applications,
analysis and forecasting of economic time series, portfolio theory,
learning theory and high-dimensional data analysis

COURSES TAUGHT at the ULB (since 1988):

Undergraduate courses:

- Elements of Mathematical Physics: Electromagnetics and Special Relativity
- Mathematical physics: Fourier analysis and applications
- Mathematics for Physics: Partial Differential Equations

Graduate courses:

- Complements of Mathematics
- Mathematical Methods in Physics
- Imaging and Inverse Problems
- Mathematical Methods in Image and Signal Processing
- Wavelets and Applications
- Topics in Applied Mathematics
- Statistical Learning

AWARDS AND HONORS

Fleurice Mercier Prize 1973 awarded by the Free University of Brussels

Travel Grant Award 1976 of the Belgian government

Young Scientist Fellowship 1987 awarded by the international U.R.S.I. Committee

Best Paper Award at the VIII Asian Conference on Computer Vision (ACCV07) (2007)

Paper "Linear Inverse Problems from Discrete Data" (1985, with M. Bertero and E. R. Pike)
has been selected to appear in the 25th Year Anniversary Collection of the journal
"Inverse Problems" which "comprises an outstanding paper for each year of publication"

Nominated then Elected Chair of the SIAM Activity Group on Imaging Science
(January 2012 – December 2013)

GRANTS

Coordinator NATO Research Grant 1984-89 "Mathematical Inversion Methods applied to Imaging Problems"
(collaboration with the "Royal Signals and Radar Establishment", Malvern, U.K., and the University of
Genoa, Italy)

Promotor of EEC Research Project 1986-89 "Application of Singular System Theory to Instrumentation"
(collaboration with the "Royal Signals and Radar Establishment", Malvern, U.K., the AMTEC Company,
Nice, France, and the Universities of Genoa, Italy, and Amsterdam, The Netherlands)

Promotor F.R.F.C. Research Grant "Solution of inverse imaging and scattering problems" (1994-98)

Co-promotor Interuniversity Attraction Pole "Statistical techniques and modeling for complex substantive questions
with complex data" (2002-06)

Co-promotor ARC project ("Action de recherche concertée") "Forecasting in data-rich environments: financial and macroeconomic applications" (2002-07)

Promotor "Banque Nationale de Belgique" Research Grant "Sparsity and Stability in Portfolio Optimization and Macroeconomic Forecasting"

Co-promotor GOA 62 project at the VUB (2008-13) "Sparsity: Regularization, optimization, computation"

Promotor of Francqui post-doctoral fellowship awarded to Ignace Loris (VUB) (2007-08)

Co-promotor International Francqui Professor Chair awarded to Ingrid Daubechies (2010)

Co-promotor ARC project ("Action de recherche concertée") "High-dimensional Data in Economics and Finance" (2010-15)

Co-promotor Interuniversity Attraction Pole P7/06 "Developing crucial Statistical methods for Understanding major complex Dynamical Systems in natural, biomedical and social sciences (StUDyS)" (2012-17)

Co-promotor International Francqui Professor Chair awarded to Robert Calderbank (2016)

ACADEMIC SERVICE

Member of the Editorial Board of the journal "Inverse Problems" (1993-97)

Member of the Editorial Board of the journal "Numerical Functional Analysis and Optimization" (since 2006)

Member of the Belgian F.W.O. Scientific Commission "Fysica en sterrekunde" (2001-09)

Member of the Scientific Council of the Belgian Royal Meteorological Institute (since 1999)

Associate Member (since 1985), Effective Member (elected, since 2009), Vice-President (elected, 2011-15), and President (elected, 2015-18) of the U.R.S.I. Belgian National Committee

Member (elected) of the Belgian National Committee for Mechanics ("Comité National de Mécanique Théorique et Appliquée") (2008-18), Honorary Member since 2018

Co-director of the unit "Mechanics and Applied Mathematics", Department of Mathematics ULB (since 1998)

Vice-president (February-October 2009) and President (October 2009-October 2010) of the Department of Mathematics, Faculty of Sciences, ULB

ORGANIZATION OF CONFERENCES

Co-organizer of F.N.R.S. Contact Group Meetings "Wavelets and Applications" (since 1996)

Co-organizer Solvay Workshop on "Sparsity, learning and computation" (Brussels, 2009)

Co-organizer Francqui Interdisciplinary Workshop on "Sparsity and Modern Mathematical Methods for High Dimensional Data" (Brussels, 2010)

Co-organizer Workshop "Wavelets and Fractals" (Esneux, Belgium, 2010)

Member of the Scientific Committee of the conference "Mathematics and Image Analysis 2012" (MIA'12) (Paris, France)

Member of the Scientific Committee of the conference "International Travelling Workshop on Interactions between Sparse Models and Technology" (iTWIST'14, Namur, Belgium, 2014, iTWIST'16, Aalborg, Denmark, 2016 and iTWIST'18, Marseille, France, 2018)

Member of the Scientific Committee of the COEURE's Workshop "Developments in Data and Methods for Economic Research", Brussels, Belgium (2015)

Member of the Scientific Committee of the "Mathematics in Imaging" Conference, Optical Society of America
"Imaging and Applied Optics Congress", San Francisco, USA (2017)

REFEREE OR EXPERT

for a wide range of international journals in mathematics, physics, engineering and economics, including

Acta Applicanda Mathematicae, Annals of Economics and Statistics, Applied Computational and Harmonic Analysis, Applied Mathematics and Computation, Applied Numerical Mathematics, Applied Optics, Communications in Nonlinear Science and Numerical Simulation, Communications on Pure and Applied Mathematics, Computational Optimization and Applications, Computational Statistics and Data Analysis, Econometric Theory, European Journal of Physics, European Journal of Operational Research, Foundations of Computational Mathematics, IEEE Journal of Selected Topics in Signal Processing, IEEE Transactions on Antennas and Propagation, IEEE Transactions on Image Processing, IEEE Transactions on Neural Networks and Learning Systems, IEEE Transactions on Nuclear Science, IEEE Transactions on Signal Processing, IEE Proceedings, International Journal of Forecasting, International Journal on Wavelets, Multiresolution and Information Processing, Inverse Problems, Inverse Problems and Imaging, Journal of the American Statistical Society, Journal of Applied Econometrics, Journal of Complexity, Journal of Econometrics, Journal of Electromagnetic Waves and Applications, Journal of the European Optical Society A, Journal of Fourier Analysis and Applications, Journal of Global Optimization, Journal of Integral Equations and Applications, Journal of Mathematical Physics, Journal of Mathematical Imaging and Vision, Journal of Modern Optics, Journal of Optics, Journal of the Optical Society of America, Journal of Physics A, Journal of the Royal Statistical Society Series B, Mathematical Finance, Neural Computation, Numerical Functional Analysis and Optimization, Numerische Mathematik, Operations Research, Optica Acta, Oxford Bulletin of Economics and Statistics, Review of Economics and Statistics, SIAM Journal on Applied Mathematics, SIAM Journal on Imaging Sciences, SIAM Journal on Mathematical Analysis, SIAM Journal on Numerical Analysis, SIAM Journal on Optimization, SIAM Journal on Scientific Computing, Statistica Sinica, Studies in Nonlinear Dynamics and Econometrics,

for PhD and habilitation theses committees in several Belgian and foreign universities such as

Brussels, Louvain, Ghent, Ferrara, Innsbruck, Montpellier, Paris VI, Paris-Est, Paris-Sud, Genoa, Nice Sophia Antipolis, Vienna,

for the international conference (Member of the Technical Program Committee)

SPARS'09 (Signal Processing with Adaptive Sparse Structured Representations),
Saint-Malo (April 2009)

for research projects submitted

in Belgium to the FNRS, FWO and FRIA
abroad to the European Research Council (ERC), INFN (panel member), FIRB, PRIN in Italy,
WWTF, FWF in Austria, The Netherlands Organization for Scientific Research (NWO),
Social Sciences and Humanities Research Council of Canada,

for hiring committees at ULB and abroad at the Universities of Bremen, Munich and Vienna.

PUBLICATIONS

1. Theses

1. Sur le problème inverse de la diffusion élastique à énergie fixée
C. De Mol
B. Sc. Thesis (Mémoire de Licence), Faculté des Sciences, Université Libre de Bruxelles (1975) (80 p.).
2. Contributions à l'étude du problème inverse de la diffusion élastique à énergie fixée
C. De Mol
Thesis awarded a grant at the 1976 Belgian Government Contest for travel grants (64 p.)
3. Sur la régularisation des problèmes inverses linéaires
C. De Mol
Ph. D. Thesis, Faculté des Sciences, Université Libre de Bruxelles (1979) (130 p.)
4. Super-résolution en microscopie confocale
C. De Mol
Thèse d'Agrégation de l'enseignement supérieur, Faculté des Sciences, Université Libre de Bruxelles (1992)

2. Book edited

1. Scattering : Scattering and Inverse Scattering in Pure and Applied Science
R. Pike and P. Sabatier, main editors (Associate Editor for Sections 1.3, 1.5 and 1.6)
Academic Press (2002), 2 volumes

3. Papers

1. Restoration of optical objects using regularization
M. Bertero, C. De Mol, G. A. Viano
Optics Letters 3 (1978) : pp. 51-53
2. Object Restoration Beyond the Rayleigh Limit in the Presence of Noise
M. Bertero, C. De Mol, G. A. Viano
in : "Optica, hoy y mañana" (J. Bescós, A. Hidalgo, L. Plaza, J. Santamaría, eds.),
Proceedings of the ICO-11 Conference (Madrid, Spain, 1978), Instituto de Optica "Daza de Valdes"
C.S.I.C., Sociedad Española de Optica, Madrid (1978), pp. 375-377
3. On the regularization of linear inverse problems in Fourier optics
M. Bertero, C. De Mol, G. A. Viano
in : "Applied Inverse Problems" (P. C. Sabatier, ed.), Lecture Notes in Physics Vol. 85,
Springer-Verlag, Berlin (1978), pp. 180-199
4. On the problems of object restoration and image extrapolation in optics
M. Bertero, C. De Mol, G. A. Viano
J. Math. Phys. 20 (1979) : pp. 509-521
5. Superresolution : an ill-posed problem in Fourier optics
C. De Mol (invited lecture)
in : "Ill-Posed Problems : Theory and Practice" (M. Z. Nashed, ed.), Proceedings of the
International Symposium (Newark, Delaware, U.S.A. , 1979)
6. Resolution beyond the diffraction limit for regularized object restoration
M. Bertero, C. De Mol, G. A. Viano
Optica Acta 27 (1980) : pp. 307-320
7. Ill-posed Inverse Problems and Logarithmic Continuity in Electromagnetics
M. Bertero, C. De Mol, G. A. Viano
in : "Proceedings of the International U. R. S. I. - Symposium 1980 on Electromagnetic Waves
(Munich, F. R. G., August 1980)", pp. 313 C / 1-4
8. The Superresolution Problem in Doppler Difference Laser Anemometry
J. B. Abbiss, C. De Mol, M. A. Fiddy, G. Ross
in : "Proceedings of the 4th International Conference on Photon Correlation Techniques
in Fluid Mechanics" (Stanford, U. S. A., August 1980), Joint Institute for Aeronautics and
Acoustics, Stanford University (8 p.)

9. The Stability of Inverse Problems
M. Bertero, C. De Mol, G. A. Viano
in : "Inverse Scattering Problems in Optics" (H. P. Baltés, ed.), Topics in Current Physics Vol. 20,
Springer-Verlag, Berlin (1980), pp. 161-214 (Chap. V)
10. Sufficient Conditions for the Existence of Bound States in a Potential without Spherical Symmetry
K. Chadan, C. De Mol
Annals of Physics 129 (1980) : pp. 466-478
11. Stability Problems in Inverse Diffraction
M. Bertero, C. De Mol
IEEE Trans. on Antennas and Propagation AP-29 (1981) : pp. 368-372
12. Ill-Posedness, Regularization and Number of Degrees of Freedom
M. Bertero, C. De Mol
Atti della Fondazione Giorgio Ronchi, Anno XXXVI, N° 5-6 (1981) : pp. 619-632
13. Introduction aux méthodes de régularisation des problèmes inverses
C. De Mol
in : "Méthodes mathématiques de la physique nucléaire" (M. Demeur, B. Giraud, P. Quentin, eds.),
Université Libre de Bruxelles (1982), pp. 205-244
14. Regularized iterative and non-iterative procedures for object restoration from experimental data
J. B. Abbiss, C. De Mol, H. S. Dhadwal
Optica Acta 30 (1983) : pp. 107-124
15. A regularized iterative algorithm for limited-angle inverse Radon transform
M. Defrise, C. De Mol
Optica Acta 30 (1983) : pp. 403-408
16. Superresolution and number of degrees of freedom in inverse diffraction with subwavelength sources
M. Bertero, C. De Mol, F. Gori, L. Ronchi
in : "Proceedings of the 1983 - U.R.S.I. International Symposium on Electromagnetic Theory"
(Santiago de Compostela, Spain, August 1983) (M. Rodríguez Vidal, J. L. Sebastián, J. Rivas Rey, eds.),
Universidad de Santiago de Compostela (1983), pp. 247-250
17. Regularization of an iterative algorithm for the extrapolation of band-limited signals
J. B. Abbiss, M. Defrise, C. De Mol, H. S. Dhadwal
in : "Proceedings of the 1983 - U.R.S.I. International Symposium on Electromagnetic Theory"
(Santiago de Compostela, Spain, August 1983) (M. Rodríguez Vidal, J. L. Sebastián, J. Rivas Rey, eds.),
Universidad de Santiago de Compostela (1983), pp. 251-254
18. Number of degrees of freedom in inverse diffraction
M. Bertero, C. De Mol, F. Gori, L. Ronchi
Optica Acta 30 (1983) : pp. 1051-1065
19. Regularized iterative and noniterative procedures for object restoration in the presence of noise :
an error analysis
J. B. Abbiss, M. Defrise, C. De Mol, H. S. Dhadwal
J. Opt. Soc. Am. 73 (1983) : pp. 1470-1475
20. Resolution Limits in Full- and Limited-Angle Tomography
M. Defrise, C. De Mol
in : "Information processing in medical imaging" (F. Deconinck, ed.), Martinus Nijhoff,
The Hague (1984), pp. 94-105
21. Resolution in diffraction-limited imaging, a singular value analysis -
IV. The case of uncertain localization or non-uniform illumination of the object
M. Bertero, C. De Mol, E. R. Pike, J. G. Walker
Optica Acta 31 (1984) : pp. 923-946
22. Generalised information theory for inverse problems in signal processing
E. R. Pike, J. G. McWhirter, M. Bertero, C. De Mol
IEE Proceedings 131, Part F (1984) : pp. 660-667
23. Stability and Resolution in Electromagnetic Inverse Scattering - Part I
M. Bertero, C. De Mol, E. R. Pike
in : "Inverse Methods in Electromagnetic Imaging" (W.-M. Boerner et al. , eds.),
Reidel, Dordrecht (1985), Part 1, pp. 319-328
24. Stability and Resolution in Electromagnetic Inverse Scattering - Part II
M. Bertero, C. De Mol, E. R. Pike
in : "Inverse Methods in Electromagnetic Imaging" (W.-M. Boerner et al. , eds.),
Reidel, Dordrecht (1985), Part 1, pp. 329-340

25. Linear inverse problems with discrete data. I : General formulation and singular system analysis
M. Bertero, C. De Mol, E. R. Pike
Inverse Problems 1 (1985) : pp. 301-330
26. Positive regularized solutions in electromagnetic inverse scattering
M. Bertero, P. Brianzi, C. De Mol, E. R. Pike
in : "Proceedings of the 1986 - U.R.S.I. International Symposium on Electromagnetic Theory"
(Budapest, Hungary, August 1986), Akadémiai Kiadó, Budapest (1986), and Series "Studies in Electrical and Electronic Engineering" Vol. 28A, Elseviers Science Publishers, Amsterdam (1986), pp. 150-152
27. Iterative inversion of experimental data in weighted spaces
M. Bertero, P. Brianzi, M. Defrise, C. De Mol
in : "Proceedings of the 1986 - U.R.S.I. International Symposium on Electromagnetic Theory"
(Budapest, Hungary, August 1986), Akadémiai Kiadó, Budapest (1986), and Series "Studies in Electrical and Electronic Engineering", Vol. 28A, Elseviers Science Publishers, Amsterdam (1986), pp. 315-317
28. Signal restoration from bandpass-filtered data
C. De Mol, F. Gori, G. Guattari
in : "Proceedings of the 1986 - U.R.S.I. International Symposium on Electromagnetic Theory"
(Budapest, Hungary, August 1986), Akadémiai Kiadó, Budapest, 1986, and Series "Studies in Electrical and Electronic Engineering", Vol. 28A, Elseviers Science Publishers, Amsterdam (1986), pp. 318-320
29. Particle size distributions from spectral turbidity : a singular-system analysis
M. Bertero, C. De Mol, E. R. Pike
Inverse Problems 2 (1986) : pp. 247-258
30. Applied Inverse Problems in Optics
M. Bertero, C. De Mol, E. R. Pike
in : "Inverse and Ill-posed Problems" (H.-W. Engl and C. W. Groetsch, ed.), Notes and Reports in Mathematics in Science and Engineering Vol. 4, Academic Press, Boston (1987), pp. 291-313
31. Signal Restoration from Band-Pass Filtered Data
G. Guattari, F. Gori, C. De Mol
Radio Science 22 (1987) : pp. 1031-1034
32. Inversion of light scattering data by singular system analysis
M. Bertero, C. De Mol, E. R. Pike
in : "Inverse Problems in Optics" (E. R. Pike, ed.), Proc. SPIE 808 (1987) : pp. 84-88
33. Singular bases for image processing in confocal scanning microscopy
M. Bertero, P. Boccacci, P. Brianzi, C. De Mol, E. R. Pike
in : "Scanning Imaging Technology" (T. Wilson, L. Balk, eds.), Proc. SPIE 809 (1987) : pp. 114-117
34. Singular value analysis for band-pass filtering systems
C. De Mol, F. Gori, G. Guattari
in : "Inverse Problems in Optics" (E. R. Pike, ed.), Proc. SPIE 808 (1987) : pp. 178-181
35. A note on stopping rules for iterative regularisation methods and filtered SVD
M. Defrise, C. De Mol
in : "Inverse Problems : An Interdisciplinary Study" (P. C. Sabatier, ed.), Supplement 19 in the Series "Advances in Electronics and Electron Physics", Academic Press, London (1987), pp. 261-268
36. Analytic Inversion Formula for Confocal Scanning Microscopy
M. Bertero, C. De Mol, E. R. Pike
J. Opt. Soc. Am. A4 (1987) : pp. 1748-1750
37. A new inversion procedure for confocal scanning microscopy and other bandlimited signal processing problems
E. R. Pike, M. Bertero, C. De Mol
in : "Optics and the Information Age" (H. H. Arsenault, ed.), Proc. SPIE 813 (1987) : pp. 159-160
38. The Use of Singular Systems and other Inversion Methods in Weighted L^2 - spaces
E. R. Pike, M. Bertero, M. Defrise, C. De Mol
in : "Institute of Mathematics and Its Applications Conference Series *Maths in Signal Processing*"
(Bath, U.K. , 1985), Oxford University Press, Oxford (1987), pp. 167-179
39. Extraction of Polydispersity Information in Photon Correlation Spectroscopy
M. Bertero, P. Boccacci, C. De Mol, E. R. Pike
in : "Optical Particle Sizing : Theory and Practice" (G. Gouesbet and G. Gréhan, eds.),
Plenum Press, New York and London (1988), pp. 89-98
40. Particle Size Distributions from Fraunhofer Diffraction
M. Bertero, P. Boccacci, C. De Mol, E. R. Pike
in : "Optical Particle Sizing : Theory and Practice" (G. Gouesbet and G. Gréhan, eds.),
Plenum Press, New York and London (1988), pp. 99-105

41. Particle Sizing by Inversion of Extinction Data
M. Bertero, C. De Mol, E. R. Pike
in : "Optical Particle Sizing : Theory and Practice" (G. Gouesbet and G. Gréhan, eds.),
Plenum Press, New York and London (1988), pp. 55-61
42. Linear inverse problems with discrete data. II : Stability and regularization
M. Bertero, C. De Mol, E. R. Pike
Inverse Problems 4 (1988) : pp. 573-594
43. Extraction of polydispersity information from photon correlation data
M. Bertero, P. Boccacci, C. De Mol, E. R. Pike
J. Aerosol Science 20 (1989) : pp. 91-99
44. Super-resolution in confocal scanning microscopy. II : The incoherent case
M. Bertero, P. Boccacci, M. Defrise, C. De Mol, E. R. Pike
Inverse Problems 5 (1989) : pp. 441-461
45. Superresolution in confocal scanning microscopy : Theory of the incoherent case
M. Bertero, P. Boccacci, M. Defrise, C. De Mol, E. R. Pike
in : "Signal Recovery and Synthesis III" (Technical Digest), Optical Society of America,
Washington (1989)
46. Application of Singular Systems to Some Data Reduction Problems in Modern Optics
M. Bertero, C. De Mol, E. R. Pike
in : "Inverse Problems in Action" (P.C. Sabatier, ed.), Series "Inverse Problems and
Theoretical Imaging", Springer-Verlag, Berlin (1990), pp. 248-261
47. A critical survey of regularized inversion methods
C. De Mol
in : "Inverse Problems in Scattering and Imaging" (M. Bertero and E.R. Pike, eds.),
Adam Hilger, Bristol (1992), pp. 345-370
48. Super-resolution in confocal scanning microscopy: generalised inversion formulae
M. Defrise, C. De Mol
Inverse Problems 8 (1992) : pp. 175-185
49. New data inversion formulae in confocal scanning microscopy
C. De Mol, M. Defrise
in : "Inverse Problems in Scattering and Imaging" (M. A. Fiddy, ed.), SPIE Proc. Vol. 1767 (1992)
50. Inversion from redundant data
M. Defrise, C. De Mol
in : "Inverse Problems : Principles and Applications in Geophysics, Technology and Medicine"
(G. Anger et al. , eds.), Series Mathematical Research, vol. 74, Akademie Verlag, Berlin (1993),
pp. 111-121
51. Stability and resolution in electromagnetic inverse problems
C. De Mol
Invited Survey, Proceedings of the European Symposium on Numerical Methods in Electromagnetics
(JEE'93, Toulouse, France) (1993), pp. 57-66
52. SVD for linear inverse problems
M. Bertero, C. De Mol
in : "SVD and Signal Processing III, Algorithms, Architectures and Applications"
(M. Moonen and B. De Moor, eds.), Elsevier, Amsterdam (1995), pp. 341-348
53. Mapping 2-D defects in a conductive half-space by eigenfunction expansions in K-space of Fourier-Laplace
transforms
A. Litman, D. Lesselier, C. De Mol
in : "Nondestructive Testing of Materials" (R. Collins et al. eds.), IOS Press, Amsterdam (1995),
pp. 175-183
54. Resolution enhancement by data inversion techniques
C. De Mol
in : "Trends in Optics: Research, Developments and Applications" ICO Book 3 (A. Consortini, ed.),
Academic Press (1996), pp. 281-297 (Chapter 15)
55. Super-resolution by data inversion
M. Bertero, C. De Mol
in : "Progress in Optics" (E. Wolf, ed.), vol. XXXVI, Elsevier, Amsterdam (1996), pp. 129-178
(Chapter 3)
56. How to beat the Rayleigh Limit?
C. De Mol
ZAMM-Zeitschrift für Angewandte Mathematik und Mechanik (1996),
Special Issue 2 (Applied Analysis) ICIAM/GAMM 95, pp. 185-188

57. Inverse diffraction from far- and near-field data
C. De Mol
in: "Proceedings of the 3rd International Workshop on Inverse Problems in Electromagnetics and Acoustics", Université Blaise Pascal, Clermont-Ferrand (1997)
58. Wavelets for solving inverse problems
C. De Mol
in: "Coherent states, Quantization and Gravity" (M. Schlichenmaier, A. Strasburger, S. T. Ali, Odziejewicz, eds), Warsaw University Press, Warsaw (2001), pp. 139-152
59. A note on wavelet-based inversion algorithms
C. De Mol, M. Defrise
in: "Inverse Problems, Image Analysis, and Medical Imaging", M. Z. Nashed and O. Scherzer, eds Series "Contemporary Mathematics" vol. 313, pp. 85-96, American Mathematical Society (2002)
60. A Fourier-based method for the restoration of chopped and nodded images
M. Bertero, P. Boccacci, A. Custo, C. De Mol, M. Robberto
Astronomy and Astrophysics 406 (2003) : pp. 765-772
61. An iterative thresholding algorithm for linear inverse problems with a sparsity constraint
I. Daubechies, M. Defrise, C. De Mol
Communications on Pure and Applied Mathematics 57 (2004) : pp. 1416-1457
62. Inverse imaging with mixed penalties
C. De Mol, M. Defrise,
Proceedings URSI EMTS 2004, Ed. PLUS Univ. Pisa, pp. 798-800
63. Regularizing Linear Inverse Problems by Sparsity Constraints
C. De Mol, I. Daubechies, M. Defrise
In "Wavelet and Multiscale Methods", Oberwolfach Reports No. 34/2004, Vol. 1, Issue 3 (2004).
64. A regularized approach to feature selection for face detection
A. Destrero, C. De Mol, F. Odone, and A. Verri
Proceedings of the VIII Asian Conference on Computer Vision (ACCV07).
Springer Lecture Notes in Computer Science 4844, part II, pp. 881-890,
ISSN0302-9743 (Print) 1611-3349 (Online), 2007
Best Student Paper Award (Sponsored by Springer)
65. Forecasting using a large number of predictors: is Bayesian shrinkage a valid alternative to principal components?
C. De Mol, D. Giannone, L. Reichlin
Working Paper European Central Bank No 700 (2006), ECORE DP2007/60
Journal of Econometrics 146 (2008) : pp. 318-328
66. An overview of some mathematical methods for medical imaging
M. Defrise, C. De Mol
In: "Proceedings of the NATO Advanced Study Institute on Molecular Imaging from Physical Principle to Computer Reconstruction and Practice (Archamps, November 2006)", Y. Lemoigne and A. Caner, eds. pp. 93-130. NATO Science for Peace and Security Series-B: Physics and Biophysics, Springer 2008.
67. Feature selection for high dimensional data
A. Destrero, S. Mosci, C. De Mol, A. Verri, F. Odone
Computational Management Science 6 (2009) : pp. 25-40
68. A sparsity-enforcing method for learning face features
A. Destrero, C. De Mol, F. Odone, A. Verri
IEEE Transactions on Image Processing 18 (2009) : pp. 188-201
69. A Regularized Framework for Feature Selection in Face Detection and Authentication
A. Destrero, C. De Mol, F. Odone, A. Verri
International Journal of Computer Vision 83 (2009): pp. 164-177
70. Analysis of Elastic-Net Regularization
L. Rosasco, C. De Mol, E. De Vito
In "Learning Theory and Approximation", Oberwolfach Reports No. 30/2008, Vol. 5, Issue 3 (2008).
71. A Regularized Method for Selecting Nested Groups of Relevant Genes from Microarray Data
C. De Mol, S. Mosci, M. Traskine, A. Verri
Journal of Computational Biology 16 (2009) : pp. 677-690
72. Sparse and stable Markowitz portfolios
J. Brodie, I. Daubechies, C. De Mol, D. Giannone, I. Loris
Proc. Natl Acad. Sci. USA 106 (2009): pp. 12267-12272 (No 30, 28 July 2009)

73. Elastic-Net Regularization in Learning Theory
C. De Mol, E. De Vito, L. Rosasco
Journal of Complexity 25 (2009) : pp. 201-230
74. Accelerating gradient projection methods for l_1 -constrained signal recovery by steplength selection rules
I. Loris, M. Bertero, C. De Mol, R. Zanella, L. Zanni
Applied Computational and Harmonic Analysis 27 (2009) : pp. 247-254
75. Sparsity in Learning Theory
C. De Mol
In "Wavelets and Multiscale Methods", Oberwolfach Reports No. 33/2010, Vol. 7, Issue 3 (2010)
76. Blind Deconvolution and Nonnegative Matrix Factorization
C. De Mol, L. Lecharlier
In "Computational Inverse Problems", Oberwolfach Reports No. 51/2012, Vol. 9, Issue 4 (2012)
77. Regularized Blind Deconvolution with Poisson Data
L. Lecharlier, C. De Mol
Journal of Physics Conference Series 464 (2013) : 012003
78. Forecasting with high-dimensional time series
C. De Mol, D. Giannone, L. Reichlin
In "Applied Harmonic Analysis and Sparse Approximation", Oberwolfach Reports No. 38/2015, Vol. 12, Issue 3 (2015) : pp. 2205-2207
79. Optimal Combination of Survey Forecasts
C. Conflitti, C. De Mol, D. Giannone
International Journal of Forecasting 31 (2015) : pp. 1096-1103
80. Sparse Markowitz Portfolios
C. De Mol
In: "Financial Signal Processing and Machine Learning", A. N. Akansu, S. R. Kulkarni and D. M. Malioutov, eds., Wiley-IEEE Press 2016, Chapter 2, pp. 11-22
81. Big Data in Economics: Evolution or Revolution?
C. De Mol, E. Gautier, D. Giannone, S. Mullainathan, L. Reichlin, H. van Dijk, J. Wooldridge
In: "Economics without Borders: Economic Research for European Policy Challenges", R. Blundell, E. Cantillon, B. Chizzolini, M. Ivaldi, W. Leininger, R. Marimon, L. Matyas, T. Ogden, F. Steen, eds., Cambridge University Press 2017, Chapter 14, pp. 612-631
82. Sparsity-enforcing regularisation and ISTA revisited
I. Daubechies, M. Defrise, C. De Mol
Inverse Problems 32 (2016), 104001
83. On Blind Imaging, NMF and PET
M. Defrise, C. De Mol
In: The Radon Transform: The First 100 Years and Beyond, R. Ramlau & O. Scherzer eds., De Gruyter 2019, in press.

CITATIONS

see Google Scholar profile for "C De Mol"

CONFERENCES, COMMUNICATIONS , SEMINARS

A. Invited Speaker at the following conferences

- Newark, Delaware, U.S.A. (1979) : International Symposium on Ill-posed Problems : Theory and Practice
Bad Windsheim, F.R.G. (1983) : NATO - Advanced Research Workshop on Inverse Methods in
Electromagnetic Imaging
Leuven, Belgium (1985) : Congrès annuel de la Société Mathématique de Belgique
Lake St Wolfgang, Austria (1986) : Alpine - U.S. Seminar on "Inverse and Ill-Posed Problems"
Montpellier, France (1986) : Rencontre interdisciplinaire "Problèmes inverses"
Tel-Aviv, Israel (1987) : XXIInd General Assembly of the International Union of Radio Science
Berlin, F.R.G. (1987) : Workshop on Inverse and Ill-posed Problems
Montpellier, France (1989) : Multicentennials Meeting on Inverse Problems
Cape Cod, U.S.A. (1991) : NATO - Advanced Workshop on Inverse Problems in Scattering and Imaging
Montpellier, France (1991) : Interdisciplinary Aspects of Inverse Problems
Toulouse, France (1992) : Workshop on "Inverse Problems in Electromagnetism"
Potsdam, F.R.G. (1993) : International Conference on "Inverse Problems: Principles and Applications in
Geophysics, Technology and Medicine"
Toulouse, France (1993) : European Symposium on Numerical Methods in Electromagnetics
Kyoto, Japan (1994) : Frontiers in Information Optics, Topical Meeting of the International Commission for Optics
Hamburg, Germany (1995) : ICIAM 95, The Third International Congress on Industrial and Applied
Mathematics
Oberwolfach, Germany (1995) : International Workshop "Wavelets - Signalverarbeitung"
Rome, Italy (1996) : Workshop on Curve Estimation, Super-resolution and Applications,
Istituto per le Applicazioni del Calcolo (IAC - CNR)
Antwerp, Belgium (1996) : Joint AMS-Benelux Mathematics Meeting (Session Organizer and Invited Speaker)
Clermont-Ferrand, France (1997) : 3rd International Workshop on Inverse Problems in Electromagnetics and
Acoustics (PIEMA 97)
Lund, Sweden (1997) : Workshop on Electrical Engineering and Telecommunications
Baltimore, USA (1998) : Joint Annual Meetings AMS-MAA
Bialowieza, Poland (1998) : XVIIth Workshop on Geometric Methods in Physics
Nantes, France (1998) : Progress in Electromagnetics Research Symposium (PIERS)
Oberwolfach, Germany (1998) : Conference on Inverse Wave Scattering Problems and Applications
Vietri sul Mare, Italy (1998) : International Conference on Inverse Problems
Clermont-Ferrand, France (1999) : 4th International Workshop on Inverse Problems in Electromagnetics
and Acoustics (PIEMA 99)
New Orleans, USA (2001) : Joint Annual Meetings AMS-MAA
Lake Arrowhead (UCLA), CA, USA (2003) Applied Inverse Problems : Theoretical and Computational
Aspects
Bressanone, Italy (2003) : International Workshop "Inverse Problems in Applied Sciences"
Oberwolfach, Germany (2004) : Workshop on "Wavelet and Multiscale Methods"
Toulouse, France (2005) : Workshop on Inverse Problems
Genova, Italy (2006) : Workshop on "Analytic Methods for Learning Theory: Learning, Regularization and
Approximation"
Genova, Italy (2006) : "Third Bioinformatics Meeting on Machine Learning for Microarray studies of
Disease: biomarker selection"
Oberwolfach, Germany (2006) : Workshop on "Statistical methods for inverse problems" (invited participant)
Vancouver, Canada (2007) : Conference on "Applied Inverse Problems: Theoretical and Numerical Aspects"
Snowbird, UT, USA(2007) : Von Neumann Symposium: "Sparse Representation and High-Dimensional Geometry"
Bremen, Germany (2007) : Workshop "Adaptive Numerical Methods for Inverse Problems"
Marseille, France (2007) : CIRM "Mathematical Image Processing Meeting"
Southampton, UK (2008) : SIAM UK/IE Annual Meeting
Obergurgl, Austria (2008) : Workshop "Inverse Problems with Sparsity Constraints"
Cambridge, UK (2008) : Workshop on "Sparsity and its application to large inverse problems"
Porquerolles, France (2009) : Conference on "Approximation and Optimization in Image Restoration and
Reconstruction"
Vienna, Austria (2009) : Conference on "Applied Inverse Problems"
Brussels, Belgium (2009) : 4th Brussels-Waseda Seminar on Time Series and Financial Statistics
Bonn, Germany (2010) : Workshop on "Sparsity and Computation" (invited participant)
Linz, Austria (2010) : Workshop on "Impact of smoothness on regularization"
Linz, Austria (2010) : Workshop on "Inverse problems in data driven modelling"

Oberwolfach, Germany (2010) : Workshop on "Wavelet and Multiscale Methods"
 London, UK (2011) : Workshop SMALL on "Sparse Dictionary Learning" (invited participant)
 Genoa, Italy (2011): "Inverse problems and Applications" (Workshop in the honour of Prof. Mario Bertero)
 La Londe les Maures, France (2011): GDR MOA-MSPC "Optimisation et traitement des images"
 Heidelberg, Germany (2011): Symposium on "Variational Image Analysis" (VIA'11)
 Paris, France (2012): Conference "Mathematics and Image Analysis 2012" (MIA'12)
 (Member of the Scientific Committee)
 Philadelphia, USA (2012) : SIAM Conference on Imaging Science (IS 12)
 Oberwolfach, Germany (2012) : Workshop "Applied Harmonic Analysis and Sparse Representation"
 (invited participant)
 Goettingen, Germany (2012) : Workshop "Advances in Image Processing"
 Modena, Italy (2012) : Workshop "Optimization Techniques for Inverse Problems II"
 Oberwolfach, Germany (2012) : Workshop "Computational Inverse Problems"
 London, UK (2013) : Opening Meeting of the University College London Centre for Inverse Problems,
 Annweiler, Germany (2013) : Workshop "Advances in Mathematical Image Processing"
 Brussels, Belgium (2013) : Workshop "Recent Advances in Time Series and Econometrics" (invited discussant)
 Nice, France (2013) : Workshop "Methodological Aspects of Hyperspectral Imaging" (MAHI 2013),
 Paris (Palaiseau), France (2013) : 1st Workshop "Optimization for Image and Signal Processing"
 Oberwolfach, Germany (2013) : Workshop on "Multiscale and high-dimensional problems" (invited participant)
 Easton (Boston), MA, USA (2014) : 1st Gordon Research Conference on Image Science
 Trieste, Italy (2014) : Joint ICTP-TWAS School on "Coherent State Transforms, Time-Frequency and
 Time-Scale Analysis" (invited lecturer)
 Paris, France (2014) : Workshop GdR ISIS "Problèmes inverses"
 Montpellier, France (2015) : Conference "Challenges in Inverse Problems" in honor of P.C. Sabatier 80th birthday
 Helsinki, Finland (2015) : Applied Inverse Problems (AIP 2015)
 Oberwolfach, Germany (2015) : Workshop "Applied Harmonic Analysis and Sparse Approximation"
 Luxembourg (2015) : Colloque STATEC-Eurostat "Savoir pour agir: la statistique publique au service des citoyens"
 Bonn, Germany (2016) : Workshop "Harmonic Analysis, Graphs and Learning"
 Heidelberg, Germany (2016) : OSA "Imaging and Applied Optics" Congress, "Mathematics in Imaging"
 Milano, Italy (2016) : SIMAI 2016, XIII Biannual Congress of the Italian Society of Industrial and Applied
 Mathematics, Minisymposium "Learning, Games and Optimization"
 Modena, Italy (2016) : Workshop OIP 2016, "Optimization Techniques for Inverse Problems III"
 Heidelberg, Germany (2016) : Workshop "Inverse Problems: Theory and Statistical Inference"
 Linz, Austria (2017) : Conference "100 years of Radon Transform"
 Lausanne, Switzerland (2017) : Conference "Stochastic Dynamical Models in Mathematical Finance, Econometrics,
 and Actuarial Sciences"
 Kolding, Denmark (2017) : 6th International Conference on "Scale Space and Variational Methods in Computer Vision"
 Bremen, Germany (2017) : GAMM-MSIP Workshop on "Mathematical Signal Processing and Data Analysis"
 (Public Lecture)
 Oberwolfach, Germany (2018) : Workshop "Applied Harmonic Analysis and Data Processing" (invited participant)
 Hasselt and Houthalen, Belgium (2018) : Workshop "Time, frequency, and everything that follows",
 In celebration of the 64th birthday of Ingrid Daubechies

B. Participation to the following conferences : (*= communication presented)

Montpellier, France (1975, 1976, 1977*, 1979*, 1980*, 1981, 1982*, 1983*, 1984*, 1985**, 1988, 1992, 1993) :
 Interdisciplinary Workshops on "Inverse Problems"
 Marseille, France (1976) : Table Ronde sur les aspects théoriques et numériques du problème inverse
 de la diffusion et de la diffraction
 Madrid, Spain (1978) * : "Optica, hoy y mañana", 11th Congress of the International Commission for Optics
 Munich, F.R.G. (1980) * : International U.R.S.I. - Symposium on Electromagnetic Waves
 Boulder, Colorado, U.S.A. (1983) : VIIth International Congress on Mathematical Physics
 Santiago de Compostela, Spain (1983) ** : International U.R.S.I. - Symposium on Electromagnetic Theory
 Amsterdam, The Netherlands (1984) : European Conference on Optics, Optical Systems and Applications
 Budapest, Hungary (1986) *** : U.R.S.I. - International Symposium on Electromagnetic Theory
 Firenze, Italy (1986) ** : European Conference on Optics, Optical Systems and Applications
 Den Haag, The Netherlands (1987) *** : Fourth International Symposium on Optical and Optoelectronic
 Applied Science and Engineering
 Rouen, France (1987) *** : International Symposium on Optical Particle Sizing : Theory and Practice
 Marseille, France (1989) : International Conference "Wavelets and Applications"
 Prague, Czechoslovakia (1990) * : XXIIIrd General Assembly of the International Union of Radio Science

Bruxelles, Belgium (1991) : XXth Solvay Conference on Physics "Quantum Optics"
 Paris, France (1992) : 1st European Congress of Mathematics
 Leuven, Belgium (1994) * : 3rd International Workshop on SVD and Signal Processing
 Aix-les-Bains, France (1996) : Conference on inverse problems of wave propagation and diffraction
 Marseille, France (1997) : Conference "Perspectives in Mathematical Physics"
 St. Louis, MO, USA (2000) : CBMS-NSF Regional Conference in Applied Mathematics
 Brussels, Belgium (2002) : 34èmes Journées de statistique
 Louvain-la-Neuve, Belgium (2002) : Workshop on "Statistical Modelling and Inference for Complex Data Structures"
 Grenoble, France (2003) : International Conference "Wavelets in Statistics : Watering the Seed"
 Pisa, Italy (2004) * :URSI International Symposium on Electromagnetic Theory
 Vienna, Austria (2004) : Workshop in Statistics
 Neuchâtel, Switzerland (2008) * : 2nd International Workshop on "Computational and Financial Econometrics"
 Nice, France (2008) * : 28th International Symposium on Forecasting (ISF 2008)
 Brussels, Belgium (2008) : Francqui Symposium on "Complex Systems" (Invited participant)
 Genoa, Italy (2008) : Workshop "A Journey through Quantum Mechanics"
 Brussels, Belgium (2008) : IFO Brussels International Economic Forum (Invited participant)
 Paris, France (2009) * : "Stats in the Château"
 Brussels, Belgium (2009) : "Nonparametric Statistics and Time Series" (in honor of Marc Hallin)
 Brussels, Belgium (2010) : "Vision and Material"
 Brussels, Belgium (2010) : EABCN Conference "Advances in Business Cycle Research"
 Brussels, Belgium (2011) : "New Developments in Economics and Time Series"
 Minneapolis, USA (2012) : SIAM Annual Meeting AN12
 Paris, France (2012) : Journée thématique "Image et apprentissage"
 Leuven, Belgium (2013) : IAP StUDyS Kick-Off Workshop
 Paris, France (2013) * : 3rd International Workshop on "New Computational Methods for Inverse Problems"
 Leuven, Belgium (2013) : International Workshop on Advances in Regularization, Optimization, Kernel Methods and Support Vector Machines (ROKS 2013)
 Brussels, Belgium (2013) : Centenary of the Royal Meteorological Institute Meeting
 Namur, Belgium (2014) : International Travelling Workshop on Interactions between Sparse Models and Technology (iTWIST'14)
 Brussels, Belgium (2014) : 2nd IAP StUDyS Workshop
 Brussels, Belgium (2014) : "Policy Challenges for Europe and the World", a conference in honor of André Sapir
 Brussels, Belgium (2015) : Solvay Workshop "Le charme discret de la symétrie", in honour of Marc Henneaux
 Brussels, Belgium (2015) : COEURE's Workshop "Developments in Data and Methods for Economic Research"
 Brussels, Belgium (2015) : Conference "A path through probability in honour of F. Thomas Bruss"
 London, UK (2015) : Conference on "Complex Systems in Time Series"
 Bonn, Germany (2016) : Workshop "Low Complexity Models"
 Bonn, Germany (2016) : Workshop "Finite Weyl-Heisenberg Groups"
 Marseille, France (2018) : International Travelling Workshop on Interactions between Sparse Models and Technology (iTWIST'18)

C. Co-author of communications at the following conferences:

Como (1977), Siena (1979), Perugia (1982), Italy : Annual Conference of the Italian Physical Society
 (Summaries published les Boll. Soc. Ital. Fisica n° 112 (1977), n°115 (1979) et n° 127 (1982))
 Montpellier (1978) : Rencontre interdisciplinaire "Problèmes inverses"
 Stanford, California, U.S.A. (1980) : 4th International Conference on Photon Correlation Techniques in Fluid Mechanics
 Graz, Austria (1981) : 12th Congress of the International Commission for Optics
 Lake Tahoe, Nevada, U.S.A. (1983) : Topical Meeting on Signal Recovery and Synthesis with
 Incomplete Information and Partial Constraints
 (Summary published in the "Digest of Technical Papers", Optical Society of America)
 Bruxelles, Belgium (1983) : VIIth Information Processing in Medical Imaging Conference
 Bath, U.K. (1985) : Institute of Mathematics and Applications Conference on Signal Processing
 Honolulu, Hawaii, U.S.A. (1986) : Topical Meeting on Signal Recovery and Synthesis II
 (Summary published in the "Digest of Technical Papers", Optical Society of America)
 Québec, Canada (1987) : "Optics and the Information Age", 14th Congress of the International
 Commission for Optics
 Cape Cod, MA, U.S.A. (1989) : Topical Meeting on Signal Recovery and Synthesis III
 San Diego, CA, U.S.A. (1992) : SPIE International Symposium on Optical Sciences and Engineering
 London, U.K. (1995) : 1st International Workshop on Electromagnetic Nondestructive Evaluation (ENDE)

Baltimore, U.S.A. (2003) : Joint Annual Meetings AMS-MAA
Louvain-la-Neuve, Belgium (2006) : Workshop "Flexible Statistical Analysis adapted to Complex Data Structures"
Atlanta, USA (2006) : Beveridge-Nelson Decomposition 25th Anniversary Conference, Federal Reserve Bank
Eltville, Germany (2006) : 8th Bundesbank Spring Conference on New Developments in Economic Forecasting
Budapest, Hungary (2007) : 22nd Annual Congress of the European Economic Association
Oberwolfach, Germany (2008) : Workshop on "Learning Theory and Approximation"
Helsinki, Finland (2008) : Joint ICML-UIA-COLT Workshop on "Sparse Optimization and Variable Selection"
Geneva, Switzerland (2009) : SoFiE 2009 : First European Conference of the Society for Financial Econometrics
Shanghai, China (2010) : Econometric Society World Congress

D. Summer schools

International School of Elementary Particle Physics (CERN School of Physics), Basko Polje, Makarska, Yugoslavia (1976)
International Mathematical Summer Centre C.I.M.E. , Montecatini Terme, Italy (1986) :
Session on "Inverse Problems"

E. Invitation for short stays

at several occasions by the Universities of Genoa, Rome I "La Sapienza", Paris-Sud (Orsay), Montpellier, London (Queen Elizabeth College), and also by the "Royal Aircraft Establishment" (Farnborough, U.K.), the "Royal Signals and Radar Establishment" (Malvern, U.K.) and the London Business School;

by the University of Michigan (Ann Arbor, April 1990), by the Research Institute IZMIRAN (Academy of Sciences of the URSS, Moscow Region, January 1991), by Princeton University (December 1996, December 1997-January 1998, June 2003), and by the European Central Bank in Frankfurt (January 2006, December 2007, June 2008).

F. Invitation to give seminars

at the Universities of Genoa (1979, 1982, 1990, 1996, 2006), London (1979), Groningen (1981), Roma (1982), L'Aquila (1983), Firenze (1983), Münster (1984), Marseille (1986), Montpellier (1986), BYU, Provo, Utah, U.S.A. (1989), Ann Arbor, Michigan, U.S.A (1990), Paris VI (1993, 2004, 2010), Tokyo (1994), Montpellier (1996), Lund (1997), Geneva (2007), Besançon (2013), Bonn (2016),
at the Research Department of the Landis und Gyr Company, Zug, Switzerland (1979)
and also at several occasions in Belgium.