CURRICULUM VITAE

Personal data

Last name: KOHR
First name: MIRELA
Nationality: Romanian
Address and current position: Professor, Faculty of Mathematics and Computer Science
Babeş-Bolyai University
1 M. Kogălniceanu Str.,
400084 Cluj-Napoca, Romania
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Studies and degrees

- PhD in Mathematics, Babeş-Bolyai University, 1996
- PhD Thesis: *Modern Methods of Complex Analysis and Numerical Analysis in Fluid Mechanics*, Babeş-Bolyai University, Cluj-Napoca, 1996. Superviser: Professor Petru T. Mocanu, Member of the Romanian Academy.
- Babeş-Bolyai University, Faculty of Mathematics, Cluj-Napoca, Romania (1986-1991)

Academic positions

- Teaching assistant, Faculty of Mathematics and Computer Science, Babeş-Bolyai University, October 1991 - September 1997
- Lecturer, Faculty of Mathematics and Computer Science, Babeş-Bolyai University, October 1997 - September 2000
- Associate professor, Faculty of Mathematics and Computer Science, Babeş-Bolyai University, October 2000 - September 2006
- Professor, Faculty of Mathematics and Computer Science, Babeş-Bolyai University, October 2006 -

Academic awards and distinctions

- Award for *Scientific Excellence* in research for the year 2022, Faculty of Mathematics and Computer Science, Babeş-Bolyai University.
- Excellence in teaching award, the IX-th Edition of Excellentia Awards, Babeş-Bolyai University, 2022.
- Award for *Scientific Excellence* in research for the academic year 2013-2014, Faculty of Mathematics and Computer Science, Babeş-Bolyai University.
- Academic award of Babeş-Bolyai University in 2010.
- The Babeş-Bolyai University academic award for *Scientific Excellence* in 2007.
- The *Spiru Haret* award of the Romanian Academy in 2006 for the monograph:

  M. Kohr, I. Pop, *Viscous Incompressible Flow for Low Reynolds Numbers*, WIT Press: Computational Mechanics Publications, Southampton (UK), 2004, 448 pp.

- The Babeş-Bolyai University academic award for *Scientific Excellence* in 2004.
- The Babeş-Bolyai University academic award in 2004 for the monograph:

  M. Kohr, I. Pop, *Viscous Incompressible Flow for Low Reynolds Numbers*, WIT Press: Computational Mechanics Publications, Southampton (UK), 2004, 448 pp.
- The *G. Călugăreanu* award for the PhD thesis in 1996.
- Fellow of Wessex Institute of Great Britain from 2004.

Competence domains and significant results

A. The dynamics of viscous incompressible fluids at low Reynolds numbers

The main results in this direction refer to:

- **New boundary integral methods for Stokes flows**
  - Mathematical analysis and constructive treatment of some boundary value problems associated with the Oseen, biharmonic and oscillatory Stokes equations, by using the classical potential theory.
  - Existence and uniqueness results in various function spaces and boundary integral representations for Stokes flows in the presence of solid obstacles and rigid walls.
  - Boundary integral methods (direct or indirect) for Stokes flows in the presence of solid obstacles and fluid interfaces.
  - The study of some mobility problems by using boundary integral methods.
  - Variational boundary integral equations for the Stokes system.
- **Asymptotic analysis in the study of low Reynolds number flow problems**
  - Applications of the singular perturbation theory and of boundary integral methods in the study of two-dimensional low Reynolds number flow problems

B. Potential theory for slow viscous flow

The main results in this direction refer to:

- **New boundary integral methods for unsteady Stokes flows**
  - Boundary integral methods and existence and uniqueness results for three-dimensional oscillatory Stokes flows due to the oscillations of solid obstacles in viscous incompressible fluids
  - The study of exterior oscillatory Stokes flows in the case of small or large frequencies
- **Potential theory for the Stokes resolvent system**
  - The extension of the potential theory for the Stokes resolvent system from the case of n-dimensional domains with compact and connected boundaries to the case of n-dimensional domains with compact but not connected boundaries
  - The application of the potential theory in the study of some boundary value problems of Dirichlet, Neumann or mixed type associated with the Stokes resolvent system

C. Flow through porous media

The main results in this direction refer to:

- Existence and uniqueness results in Hölder or Sobolev spaces for boundary value problems that describe viscous flows in porous media, by using the potential theory for Stokes and Brinkman equations:
  - Stokes flow past porous bodies
  - Viscous flow past a void in a porous bed
  - Viscous flow in a porous medium and past a porous body with different permeability coefficients
  - Two- and three-dimensional Stokes-Brinkman cell models
  - Boundary integral equations for two-dimensional low Reynolds number flows past porous bodies
  - Matched asymptotic expansions at small Reynolds numbers for two-dimensional viscous incompressible flows past porous bodies
- Asymptotic results and numerical computations for linearized viscous flows in porous media
- Analytical and numerical results for oscillatory Stokes flows past porous spherical particles and cell model problems, by using the complete general solutions of Brinkman and Stokes equations
- Green's function of the Brinkman equation in a two-dimensional anisotropic case

D. Numerical and computational methods in theoretical mechanics and viscous fluid mechanics

- The application of certain numerical methods, especially the boundary element method, and of MATLAB sequences and programs to the study of some problems in viscous fluid mechanics and theoretical mechanics

E. Potential theory for elliptic boundary value problems on Lipschitz and C^1 domains in Riemannian manifolds - Applications in fluid mechanics

The main results in this direction refer to:

- Potential theory for Brinkman-type operators on Lipschitz and C^1 domains in Riemannian manifolds
- Boundary integral equations for transmission problems associated to the Stokes and Brinkman-type operators on Lipschitz and C^1 domains in Riemannian manifolds
- Boundary integral equations for Dirichlet - transmission problems for general Brinkman operators on Lipschitz and C^1 domanins in Riemannian manifolds
- Potential analysis for pseudodifferential matrix operators in Lipschitz domains on Riemannian manifolds

F. Layer potential theory for nonlinear boundary value problems for Stokes and Brinkman systems on Lipschitz domains

G. Applications of complex analysis in fluid mechanics

- New starlikeness and convexity criteria for holomorphic functions on the unit disc, by using the theory of differential subordinations
- Non-analytic uniformly starlike and uniformly convex functions on the unit disc
- Applications of the generalized analytic functions theory to the study of some problems in aerodynamics
- **Extensions of certain classical results in the geometric function theory of one complex variable to the case of several complex variables**
  - Extensions of the well known Jack-Miller-Mocanu lemma on the unit ball and pseudo-convex domains in $\mathbb{C}^n$
  - Applications of differential subordinations in $\mathbb{C}^n$
  - Loewner chains and the Loewner differential equation in $\mathbb{C}^n$. Extensions of classical results in the theory of Loewner chains to the case of several complex variables
  - Geometric and analytic properties of certain subclasses of normalized biholomorphic mappings on the Euclidean unit ball and some pseudo-convex domains in $\mathbb{C}^n$ generated by the Roper-Suffridge and the Pfaltzgraff-Suffridge extension operators

Member of the following scientific and professional organizations:

- Romanian Mathematical Society
- EUROMECH (European Mechanical Society)
- GAMM (German Society of Applied Mathematics and Mechanics)
- American Mathematical Society
- Fellow of Wessex Institute of Great Britain
- External expert - Mathematics, CNCS National Council for Scientific Research (2025 -)

Teaching activity

I have been teaching the following subjects (courses and seminars) since 1991:

- Geometric Function Theory in Several Complex Variables (master students)
- Potential Theory and Elliptic Boundary Value Problems (master and PhD students)
- Mathematical Methods in Fluid Mechanics (master and PhD students)
- Special Topics of Complex Analysis (PhD students)
- Special Topics of Fluid Mechanics (master and PhD students)
- Mechanics of Continuous Media (master students)
- Analytical Mechanics (undergraduate students)
- Theoretical Mechanics (undergraduate students)
- Hydrodynamics and Heat Transfer Theory (master students)
- Boundary Integral Methods in Fluid Mechanics (undergraduate students)
- Basic Mathematics (undergraduate students)

Graduate students

(1) Denisa-Gabriela Fericean, Ph.D Babeş-Bolyai University, 2012

(2) Robert Gutt, Ph.D Babeş-Bolyai University, 2019

(3) Andra-Monica Manu, Ph.D Babeş-Bolyai University, 2022 (joint with G. Kohr)

(4) Andrei-Florin Albişoru, Ph.D Babeş-Bolyai University, 2024

(5) Eduard Ştefan Grigoriciuc, Ph.D Babeş-Bolyai University, 2025 (joint with G. Kohr)

Member in the editorial board of the following journal:

- Studia Univ. Babeş-Bolyai (Mathematica) (2010-) and Mathematica (Cluj) (from 2016-)

Reviewer to the following journals:

- *Potential Analysis, Journal of Engineering Mathematics, Mathematical Methods in the Applied Sciences, Journal of Mathematical Analysis and Applications, Results in Mathematics, Engineering Analysis with Boundary Elements, Mathematische Nachrichten, Zeitschrift für Angewandte Mathematik und Mechanik, Integral Equations and Operator Theory, Complex Variables and Elliptic Equations, Bollettino dell'Unione Matematica Italiana, Journal of Engineering Mathematics, Analysis and Mathematical Physics, SIAM Journal on Mathematical Analysis, Analysis & PDE, Boundary Value Problems, Chemical Engineering Science, Applicable Analysis, Mathematical and Computer Modelling, Numerical Algorithms, International Journal of Mathematics and Mathematical Sciences, International Journal of Applied Mechanics and Engineering, The Arabian Journal for Science and Engineering, Journal of Inequalities in Pure and Applied Mathematics, International Journal of Physical Sciences, Journal of Applied Mathematics, Mathematica* (Cluj), *Studia* (Mathematica) Babeş-Bolyai University, *Carpathian Journal of Mathematics*, *Fixed Point Theory.*
- Reviewer to *Mathematical Reviews and Zentralblatt für Mathematik.*
- Editor of *Seminar on Mechanics*, Preprint 92(2), Babeş-Bolyai University, Cluj-Napoca, 1992.
- Editor of the special issue dedicated to the memory of *Professor Gabriela Kohr*, Studia (Mathematica), Babe-Bolyai University, No. 2 (2022).

Research collaborators

- W.L. Wendland, Institute for Applied Mathematics and Numerical Simulation, University of Stuttgart, Stuttgart, Germany
- G. Kohr, Faculty of Mathematics and Computer Sciences, Babeş-Bolyai University, Cluj-Napoca, Romania
- I. Graham, Department of Mathematics, University of Toronto, Toronto, Canada
- H. Hamada, Faculty of Engineering Kyushu Sangyo University, Fukuoka, Japan
- V. Nistor, Département de Mathématique, Université de Lorraine, Metz, France
- S.E. Mikhailov, Department of Mathematics, Brunel University London, UK
- M. Lanza de Cristoforis, Dipartimento di Matematica Pura ed Applicata, Università di Padova, Padova, Italy

- N. Grosse, Freiburg University, Germany
- D. Medková, Mathematical Institute of the Academy of Sciences of the Czech Republic, Prague
- G.P. Raja Sekhar, Department of Mathematics, Indian Institute of Technology, Kharagpur, India
- J.R. Blake, School of Mathematics, University of Birmingham, Birmingham, UK
- C. Pintea, Faculty of Mathematics and Computer Sciences, Babeş-Bolyai University, Cluj-Napoca, Romania
- I. Pop, Faculty of Mathematics and Computer Sciences, Babeş-Bolyai University, Cluj-Napoca, Romania
- P.T. Mocanu, Faculty of Mathematics and Computer Sciences, Babeş-Bolyai University, Cluj-Napoca
- T. Groşan, Faculty of Mathematics and Computer Sciences, Babeş-Bolyai University, Cluj-Napoca, Romania
- R. Trîmbiţaş, Faculty of Mathematics and Computer Sciences, Babeş-Bolyai University, Cluj-Napoca, Romania

Research visits

- **Annual research visits (visiting professor) during the period 1999-2019 to the University of Toronto, Department of Mathematics, invited by Professor Ian Graham**

  Annual research visits (visiting professor) during the period 1999-2008 to the University of Toronto, Department of Mathematics, supported by the research grant: Natural Sciences and Engineering Research Council of Canada grant A9221, Director Professor Ian Graham (invited by Professor Ian Graham)

- Research visit to the University of Padova, Department of Mathematics, June 18 2026 - June 27 2026, invited by Professor Massimo Lanza de Cristoforis
- Research visit to the University of Padova, Department of Mathematics, February 9 2026 - February 16 2026, invited by Professor Massimo Lanza de Cristoforis
- Research visit to the University of Padova, Department of Mathematics, July 3 2025 - July 11 2025, invited by Professor Massimo Lanza de Cristoforis
- Research visit to the University of Padova, Department of Mathematics, February 14 2025 - February 21 2025, invited by Professor Massimo Lanza de Cristoforis
- Research visit to the University of Lorraine, Metz, September 22 2024 - October 18 2024, invited by Professor Victor Nistor
- Research visit to the University of Padova, Department of Mathematics, June 20 2024 - June 29 2024, invited by Professor Massimo Lanza de Cristoforis
- Research visit to the University of Padova, Department of Mathematics, February 14 2024 - February 21 2024, invited by Professor Massimo Lanza de Cristoforis
- Research visit to the University of Padova, Department of Mathematics, February 12 2023 - February 19 2023, invited by Professor Massimo Lanza de Cristoforis

- Research visit to the University of Padova, Department of Mathematics, June 19 2023 - June 23 2023, invited by Prof. Massimo Lanza de Cristoforis
- Research visit to the University of Padova, Department of Mathematics, July 30 2022 - August 06 2022, invited by Professor Massimo Lanza de Cristoforis
- Research visit to the University of Padova, Department of Mathematics, April 26 2022 - May 03 2022, invited by Professor Massimo Lanza de Cristoforis
- Research visit to the University of Padova, Department of Mathematics, August 24 - August 31 2021, invited by Professor Massimo Lanza de Cristoforis
- Research visit to Brunel University London, Department of Mathematics, February 2 - February 15 2020, invited by Professor Sergey E. Mikhailov
- Research visit to Brunel University London, Department of Mathematics, August 7 - August 23 2019, invited by Professor Sergey E. Mikhailov
- Research visit to the University of Toronto, Department of Mathematics, May 07 - June 02 2019
- Research visit to Brunel University London, Department of Mathematics, February 11 - February 21 2019, invited by Professor Sergey E. Mikhailov
- Research visit to the University of Padova, Department of Mathematics, September 10 - September 20 2018, invited by Professor Massimo Lanza de Cristoforis
- Research visit to Brunel University London, Department of Mathematics, August 8 - August 18 2018, invited by Professor Sergey E. Mikhailov
- Research visit to the University of Padova, Department of Mathematics, July 6-July 13 2018, invited by Professor Massimo Lanza de Cristoforis
- Research visit to the University of Toronto, Department of Mathematics, April 27 - May 16 2018, invited by Professor Ian Graham
- Brunel University London, Department of Mathematics, February 4 - February 14 2018 (research visit), invited by Professor Sergey E. Mikhailov (supported by the Grant EP/M013545/1: "Mathematical Analysis of Boundary-Domain Integral Equations for Nonlinear PDEs" from the EPSRC, UK, Director Professor Sergey E. Mikhailov)
- Research visit to the University of Padova, Department of Mathematics, September 11-September 17 2017, invited by Professor Massimo Lanza de Cristoforis
- Research visit to the University of Toronto, Department of Mathematics, August 1 - August 14 2017, invited by Professor Ian Graham
- Research visit to the University of Padova, Department of Mathematics, June 11-June 17 2017, invited by Professor Massimo Lanza de Cristoforis
- Research visit to the University of Toronto, Department of Mathematics, April 25 - May 13 2017, invited by Professor Ian Graham
- Brunel University London, Department of Mathematics, March 20 - March 27 2017 (research visit), invited by Professor Sergey E. Mikhailov (supported by the Grant EP/M013545/1: "Mathematical Analysis of Boundary-Domain Integral Equations for Nonlinear PDEs" from the EPSRC, UK, Director Professor Sergey E. Mikhailov)

- Brunel University London, Department of Mathematics, February 6 - February 19 2017 (research visit), invited by Professor Sergey E. Mikhailov (supported by the Grant EP/M013545/1: "Mathematical Analysis of Boundary-Domain Integral Equations for Nonlinear PDEs" from the EPSRC, UK, Director Professor Sergey E. Mikhailov)

- Research visit to the University of Padova, Department of Mathematics, November 27-December 3 2016, invited by Professor Massimo Lanza de Cristoforis

- Research visit to the University of Toronto, Department of Mathematics, August 13 - August 26 2016, partially supported by a grant of the Romanian National Authority for Scientific Research, CNCS - UEFISCDI, project number PN-II-ID-PCE-2011-3-0994, Director Professor Mirela Kohr (invited by Professor Ian Graham)

- Research visit to the University of Padova, Department of Mathematics, July 25-August 4 2016, partially supported by a grant of the Romanian National Authority for Scientific Research, CNCS - UEFISCDI, project number PN-II-ID-PCE-2011-3-0994 (Director Professor Mirela Kohr); invited by Professor Massimo Lanza de Cristoforis

- Research visit to Brunel University London, Department of Mathematics, June 14-June 18 2016, partially supported by the grant EP/M013545/1: "Mathematical Analysis of Boundary-Domain Integral Equations for Nonlinear PDEs" from the EPSRC, UK, Director Professor Sergey E. Mikhailov; invited by Professor Sergey E. Mikhailov

- Research visit to the University of Toronto, Department of Mathematics, April 22 - May 11 2016, supported by a grant of the Romanian National Authority for Scientific Research, CNCS - UEFISCDI, project number PN-II-ID-PCE-2011-3-0994, Director Professor Mirela Kohr (invited by Professor Ian Graham)

- Research visit to Brunel University London, Department of Mathematics, February 2-February 13 2016, supported by the grant EP/M013545/1: "Mathematical Analysis of Boundary-Domain Integral Equations for Nonlinear PDEs" from the EPSRC, UK, Director Professor Sergey E. Mikhailov; invited by Professor Sergey E. Mikhailov

- Research visit to Brunel University London, Department of Mathematics, October 20-October 30 2015, supported by the grant EP/M013545/1: "Mathematical Analysis of Boundary-Domain Integral Equations for Nonlinear PDEs" from the EPSRC, UK, Director Professor Sergey E. Mikhailov; invited by Professor Sergey E. Mikhailov

- Research visit to the University of Padova, Department of Mathematics, August 30-September 2 2015, partially supported by a grant of the Romanian National Authority for Scientific Research, CNCS - UEFISCDI, project number PN-II-ID-PCE-2011-3-0994 (Director Professor Mirela Kohr); invited by Professor Massimo Lanza de Cristoforis

- Research visit to the University of Toronto, Department of Mathematics, August 17-August 29 2015, partially supported by a grant of the Romanian National Authority for Scientific Research, CNCS - UEFISCDI, project number PN-II-ID-PCE-2011-3-0994 (Director Professor Mirela Kohr), and by the research grant: Natural Sciences and Engineering Research Council of Canada grant A9221, Director Professor Ian Graham (invited by Professor Ian Graham)

- Research visit to the University of Padova, Department of Mathematics, June 21 - June 24 2015, partially supported by a grant of the Romanian National Authority for Scientific Research, CNCS - UEFISCDI, project number PN-II-ID-PCE-2011-3-0994 (Director Professor Mirela Kohr); invited by Professor Massimo Lanza de Cristoforis

- University of Stuttgart and University of Wuerzburg, May 28 - May 31 2015 (research visits), invited by Prof. W.L. Wendland and Prof. O. Roth

- Research visit to the University of Toronto, Department of Mathematics, April 22 - May 14 2015, partially supported by a grant of the Romanian National Authority for Scientific Research, CNCS - UEFISCDI, project number PN-II-ID-PCE-2011-3-0994 (Director Professor Mirela Kohr), and by the research grant: Natural Sciences and Engineering Research Council of Canada grant A9221, Director Professor Ian Graham (invited by Professor Ian Graham)

- Research visit to the University of Toronto, Department of Mathematics, August 5 - August 22 2014, partially supported by a grant of the Romanian National Authority for Scientific Research, CNCS - UEFISCDI, project number PN-II-ID-PCE-2011-3-0994 (Director Professor Mirela Kohr), and by the research grant: Natural Sciences and Engineering Research Council of Canada grant A9221, Director Professor Ian Graham (invited by Professor Ian Graham)

- Research visit to the University of Padova, Department of Mathematics, June 23 - June 27 2014, partially supported by a grant of the Romanian National Authority for Scientific Research, CNCS - UEFISCDI, project number PN-II-ID-PCE-2011-3-0994 (Director Professor Mirela Kohr); invited by Professor Massimo Lanza de Cristoforis

- Research visit to the University of Toronto, Department of Mathematics, April 22 - May 13 2014, partially supported by a grant of the Romanian National Authority for Scientific Research, CNCS - UEFISCDI, project number PN-II-ID-PCE-2011-3-0994 (Director Professor Mirela Kohr), and by the research grant: Natural Sciences and Engineering Research Council of Canada grant A9221, Director Professor Ian Graham (invited by Professor Ian Graham)

- Research visit to the University of Toronto, Department of Mathematics, August 9 - August 24 2013, partially supported by a grant of the Romanian National Authority for Scientific Research, CNCS - UEFISCDI, project number PN-II-ID-PCE-2011-3-0994 (Director Professor Mirela Kohr), and by the research grant: Natural Sciences and Engineering Research Council of Canada grant A9221, Director Professor Ian Graham (invited by Professor Ian Graham)

- Research visit to the University of Toronto, Department of Mathematics, April 22 - May 13 2013, partially supported by a grant of the Romanian National Authority for Scientific Research, CNCS - UEFISCDI, project number PN-II-ID-PCE-2011-3-0994 (Director Professor Mirela Kohr), and by the research grant: Natural Sciences and Engineering Research Council of Canada grant A9221, Director Professor Ian Graham (invited by Professor Ian Graham)

- Research visit to the University of Wuerzburg, Department of Mathematics, November 11 - November 16 2013, invited by Professor Oliver Roth

- Research visit to the University of Padova, Department of Mathematics, November 8 - November 15 2012, supported by a grant of the Romanian National Authority for Scientific Research, CNCS - UEFISCDI, project number PN-II-ID-PCE-2011-3-0994 (Director Professor Mirela Kohr); invited by Professor Massimo Lanza de Cristoforis

- Research visit to the University of Toronto, Department of Mathematics, August 16 - August 29 2012, partially supported by a grant of the Romanian National Authority for Scientific Research, CNCS - UEFISCDI, project number PN-II-ID-PCE-2011-3-0994 (Director Professor Mirela Kohr), and by the research grant: Natural Sciences and Engineering Research Council of Canada grant A9221, Director Professor Ian Graham (invited by Professor Ian Graham)

- Research visit to the University of Toronto, Department of Mathematics, April 23 - May 14 2012, partially supported by a grant of the Romanian National Authority for Scientific Research, CNCS - UEFISCDI, project number PN-II-ID-PCE-2011-3-0994 (Director Professor Mirela Kohr), and by the research grant: Natural Sciences and Engineering Research Council of Canada grant A9221, Director Professor Ian Graham (invited by Professor Ian Graham)

- Research visit to the University of Padova, Department of Mathematics, June 18 - June 22 2012, supported by a grant of the Romanian National Authority for Scientific Research,

CNCS - UEFISCDI, project number PN-II-ID-PCE-2011-3-0994 (Director Professor Mirela Kohr); invited by Professor Massimo Lanza de Cristoforis

- Visiting professor to the University of Toronto, Department of Mathematics, May 8 - June 4 2011, supported by the research grant: Natural Sciences and Engineering Research Council of Canada grant A9221, Director Professor Ian Graham (invited by Professor Ian Graham)
- Research visit to the Institute for Applied Analysis and Numerical Simulation of the University of Stuttgart, partially supported by the research grant PN-II-ID 525/2007 (Director Professor Mirela Kohr); July 1 - July 6 2010 (invited by Professor W.L. Wendland)
- Research visit (visiting professor) to the University of Toronto, Department of Mathematics, August 11 - August 27 2010, partially supported by the research grant: Natural Sciences and Engineering Research Council of Canada grant A9221, Director Professor Ian Graham (invited by Professor Ian Graham)
- Research visit to University of Padova, Department of Mathematics, June 19 - June 25 2010, invited by Professor Massimo Lanza de Cristoforis
- Research visit to the University of Toronto, Department of Mathematics, April-May 2010, partially supported by the research grant: Natural Sciences and Engineering Research Council of Canada grant A9221, Director Professor Ian Graham (invited by Professor Ian Graham)
- Research visit to the University of Toronto, Department of Mathematics, May 2009, partially supported by the research grants: PN-II-ID 525/2007, Director Professor Mirela Kohr, and Natural Sciences and Engineering Research Council of Canada grant A9221, Director Professor Ian Graham (invited by Professor Ian Graham)
- Research visit to the Institute for Applied Analysis and Numerical Simulation of the University of Stuttgart, supported by the research grants: PN-II-ID 525/2007 (Director Professor Mirela Kohr) and PN-II-ID 524/2007 (Director Professor Gabriela Kohr); July 2009 and August 2009 (invited by Professor W.L. Wendland)
- Research visit to Università degli Studi di Roma "Tor Vergata", Dipartimento di Matematica, March 16-20, 2009 (invited by Professor Filippo Bracci)
- Research visit to the Institute for Applied Analysis and Numerical Simulation of the University of Stuttgart, supported by the research grant: PN-II-ID 525/2007 (Director Professor Mirela Kohr); March 2008 (invited by Professor W.L. Wendland)
- Research visit to Free University of Berlin, Department of Mathematics, supported by the research grant: PN-II-ID-525/2007 (Director Professor Mirela Kohr): September 2008 (invited by Professor H. Begehr)
- Research visit to the Institute for Applied Analysis and Numerical Simulation of the University of Stuttgart, invited by Professor W.L. Wendland, December 2008
- Visiting professor to the Institute for Applied Analysis and Numerical Simulation of the University of Stuttgart to participate in the research of the Collaborative Research Center (Sonderforschungsbereich **404 "Mehrfeldprobleme"**, SBF 404 "Multifield Problems" (project C10); December 2006 (invited by Professor W.L. Wendland)
- Visiting professor to the Institute for Applied Analysis and Numerical Simulation of the University of Stuttgart to participate in the research of the Collaborative Research Center (Sonderforschungsbereich **404 "Mehrfeldprobleme", particular project C10**; November 2005 (invited by Professor W.L. Wendland)
- Visiting professor to Tokyo Denki University, invited by Professor K. Tsurumi, February-March, 1999.

- International Banach Center, April 1997, invited by Professor J. Lawrynowicz
- Free University of Berlin, Department of Mathematics, June 1996, invited by Professor H. Begehr; Wuerzburg University, Department of Mathematics, June 1996, invited by Professor S. Ruscheweyh

Project director of the following research grants:

1. CNCSIS Grant of type AT (2001-2002):
   MATHEMATICAL METHODS IN VISCOUS FLUID MECHANICS AND CELESTIAL MECHANICS

2. CNCSIS Grant of type A 336 (2004-2006):
   MATHEMATICAL MODELS IN VISCOUS FLUID MECHANICS, THEORY OF HEAT TRANSFER AND CELESTIAL MECHANICS. APPLICATIONS

3. CNCSIS Grant of type A 1470 (2007-2008):
   MODERN PROBLEMS OF FLOW AND HEAT TRANSFER IN VISCOUS FLUIDS AND POROUS MEDIA. APPLICATIONS

4. UEFISCSU-CNCSIS Grant PN-II-ID 525 (2007-2010):
   THE STUDY OF SOME VISCOUS FLUID FLOWS IN POROUS MEDIA WITH APPLICATIONS IN BIOLOGY AND MEDICINE

5. CNCS - UEFISCDI Grant PN-II-ID-PCE-2011-3-0994 (2011-2016):
   Boundary value problems for elliptic systems on non-smooth domains with applications in fluid mechanics

6. GSCE-30259/22.01.2015 Grant for scientific excellence (2015), Babeş-Bolyai University:
   Analysis of some nonlinear boundary value problems. A potential theory approach

International Projects

- **Annual research visits** (visiting professor) to the University of Toronto, Department of Mathematics, supported by the research grant: Natural Sciences and Engineering Research Council of Canada grant A9221, Director Professor Ian Graham (invited by Professor Ian Graham), 1999-2008; 2009-2019 (partial support).

- **Visiting Researcher** within the grant EP/M013545/1 (2015-2018): *Mathematical Analysis of Boundary-Domain Integral Equations for Nonlinear PDEs* from the EPSRC, UK. Director Professor **Sergey E. Mikhailov**, Brunel University London (UK)

- **Research project** with **Prof. Victor Nistor**, Université de Lorraine, Institut Élie Cartan de Lorraine, Metz: *Integral operators in solid and fluid mechanics*, founded by Université de Lorraine, France, 2024. Research visit, Université de Lorraine, Metz, France, September 22 – 18 October, 2024, financed by this grant.

Conference and Workshops organized

1. Member of the scientific committee of the International Symposium on Geometric Function Theory and Applications (GFTA 2011), 4-8 September, 2011, Cluj-Napoca, Romania.

2. Member of the scientific committee of the International Symposium on Geometric Function Theory and Applications (GFTA 2012), 27-31 August, 2012, Ohrid, Macedonia.

3. Member of the Organizing Committee of the ICAPM 2013 - 5th International Conference on Applications of Porous Media, August 25-28, 2013, Cluj-Napoca, Romania.

4. Member of the Organizing Committee and in the Program Committee - 14th International Conference on Integral Methods in Science and Engineering (IMSE 2016), 25 - 29 July 2016, Padova, Italy.

5. Organizer together with **Victor Nistor** (France) and **Mihai Putinar** (USA) of the special session on *Integral Operators and Layer Potentials*, 9th Congress of Romanian Mathematicians, June 28–July 3, 2019, Galaţi, Romania.

6. Main organizer of the First Edition of the Workshop dedicated to the memory of **Professor Gabriela Kohr**: *Geometric Function Theory in Several Complex Variables and Complex Banach Spaces*, December 1–3, 2021, Babeş–Bolyai University, Cluj-Napoca, Romania.

7. Organizer together with **Victor Nistor** (Metz) and **Pierre Bousquet** (Toulouse) of the special section on *Analyse et Applications*, XVeme Colloque Franco-Roumain de mathématiques appliquées, 29 August 2 September 2022, Toulouse, France.

8. Main organizer of the Second Edition of the Workshop dedicated to the memory of **Professor Gabriela Kohr**: *Geometric Function Theory in Several Complex Variables and Complex Banach Spaces*, December 1–3, 2022, Babeş–Bolyai University, Cluj-Napoca, Romania.

9. Organizer together with **Victor Nistor** (Metz, France) of the Special session on *Integral Operators and Applications*, 10th Congress of Romanian Mathematicians, June 30–July 5, 2023, Piteşti, Romania.

10. Co-organizer, together with **Lucian Beznea**, **Cezar Joiţa**, and **Eugen Mihăilescu** of the session *Real and Complex Analysis, Potential Theory*, The Tenth Congress of Romanian Mathematicians, June 30 - July 5, 2023, Piteşti, Romania.

11. Main organizer of the Third Edition of the Workshop dedicated to the memory of **Professor Gabriela Kohr**: *Geometric Function Theory in Several Complex Variables and Complex Banach Spaces*, December 1–3, 2023, Babeş–Bolyai University, Cluj-Napoca, Romania.

12. Member of the Scientific Committee of the conference Aspect'24 *Asymptotic Analysis & Spectral Theory*, September 23–27, 2024, Metz, France.

13. Main organizer of the Fourth Edition of the Workshop dedicated to the memory of **Professor Gabriela Kohr**: *Geometric Function Theory in Several Complex Variables and Complex Banach Spaces*, November 29–December 1, 2024, Babeş–Bolyai University, Cluj-Napoca, Romania.

14. Member of the Organizing committee of the International Conference on Analysis, the 16th Romanian-Finnish Seminar June 24–27, 2025, Alba Iulia, Romania.

15. Main organizer of the Fifth Edition of the Workshop dedicated to the memory of **Professor Gabriela Kohr**: *Geometric Function Theory in Several Complex Variables and Complex Banach Spaces*, November 28–November 30, 2025, Babeş–Bolyai University, Cluj-Napoca, Romania.

Talks in conferences and seminars

- International Conference of Complex Analysis (Romanian-Finish Seminar), Timişoara, 23-27 August 1993;
  Communication: **M. Kohr-Ile**, G. Kohr, *Starlikeness of certain analytic functions*

- Ostereich Congress of Mathematics, Linz, 20-24 September 1993;
  Communication: **M. Kohr-Ile**, I. Stan, *Numerical analysis for tension gradient flow on fluid obstacles*

- German Congress of Applied Mathematics and Mechanics (GAMM), Dresden, 12-16 April 1993;
  Communication: **M. Kohr-Ile**, G. Kohr, *Study of Oseen motions by fundamental solutions method and boundary element methods*

- German Congress of Applied Mathematics and Mechanics, Braunschweigh, 4-8 April 1994;
  Communications: **M. Kohr-Ile**, G. Kohr, *An application of (P, Q)-analytic functions to study of an axially symmetric ideal compressible jet*;
  M. Kohr-Ile, I. Stan, Z. Kasa, *Numerical analysis for tension gradient flow on the fluid obstacles*

- International Congress of Mathematicians (ICM), Zurich , 1-10 August 1994;
  Communication: G. Kohr, **M. Kohr-Ile**, *Subordination theory for holomorphic mappings of several complex variables*

- International Congress of Industrial and Applied Mathematics (ICIAM), Hamburg (Germania), 3-7 July 1995;
  Communications: G. Kohr, **M. Kohr-Ile**, *Some sufficient conditions of univalence*;
  M. Kohr-Ile, G. Kohr, *Numerical methods for the motion of rigid obstacles in fluid viscous flows*

- European Congress of Mathematics (ECM), Budapest , 22-26 July 1996;
  Poster: **M. Kohr**, *Some existence result for a Stokes flow between two arbitrarily closed curves*

- Annual Conference of the Romanian Mathematical Society, 29.05-01.06.1997;
  Communication: **M. Kohr**, *Studiul mişcărilor fluide de tip Stokes în prezenţa unor obstacole şi pereţi*

- Annual Conference of the Romanian Mathematical Society, Cluj-Napoca, 27.05-31.05.1998;
  Communication: **M. Kohr**, *Asupra unor mişcări fluide de tip Stokes*

- International Congress of Mathematicians (ICM), Berlin (Germania), 18-27 August 1998;
  Poster: **M. Kohr**, *A direct boundary integral formulation for a Stokes flow problem*

- Conferinţa Naţională "Caius Iacob" de Mecanica Fluidelor, Cluj-Napoca, 28-30 September 1998;
  Communication: **M. Kohr**, *Studiul unor mişcări fluide vâscoase incompresibile prin metode integrale pe frontieră*

- International Conference of Complex Analysis (Romanian-Finish Seminar), Iaşi, 23-27 August 1999;
  Communication: G. Kohr, **M. Kohr**, *On some results concerning biholomorphic mappings in $\mathbb{C}^n$ and infinite dimensions*

- International Conference of Mathematics and Applications, Kyoto (Japonia), March 1999;
  Communication: G. Kohr, **M. Kohr**, *Biholomorphic mappings in $\mathbb{C}^n$ and infinite dimensions*

- European Congress of Mathematics (ECM), Barcelona (Spania), 10-14 iulie 2000

- Computational Methods in Function Theory (CMFT), Aveiro (Portugal), June 2001;
  Communication: G. Kohr, **M. Kohr**, *Univalent mappings associated with the Roper-Suffridge extension operator*

- The 3rd ISAAC Congress, Berlin 2001, August 2001 (Organizer of the Section: Geometric Function Theory);
  Communication: **M. Kohr**, *A boundary integral method for an oscillatory Stokes flow past two bodies*

- International Conference of Complex Analysis (Romanian-Finish Seminar), Braşov, August 2001;
  Communication: G. Kohr, **M. Kohr**, *Linear invariance and parametric representation of univalent mappings in several complex variables*

- International Conference on Analytic Functions, Bedlewo, August 2002;
  Communication: G. Kohr, **M. Kohr**, *Loewner chains in several complex variables*

- The 5th International Congress of Romanian Mathematicians, Piteşti, June 2003;
  Poster: **M. Kohr**, *Boundary integral method for an oscillatory Stokes. flow past a solid particle*

- 4th European Congress of Mathematics, Stockholm, June 2004;
  Poster: **M. Kohr**, *A boundary integral equation method for Stokes flow past a smooth obstacle in a two-dimensional channel*

- Romanian-Japanese Conference in Complex Analysis, Braşov, August 2004.

- Computational Methods in Function Theory (CMFT 2005), Joensuu (Finlanda), June 2005;
  Poster: **M. Kohr**, *Boundary value problems for the Stokes resolvent system*;
  Communication: G. Kohr, **M. Kohr**, *Loewner chains and the Loewner differential equation in several complex variables. Applications*

- Nevanlinna Colloquium, Lausanne, July 2005;
  Poster: **M. Kohr**, *Boundary value problems for the Stokes resolvent equations in bounded domains in* $\mathbb{R}^n$

- International Conference on Complex Analysis and Related Topics. The X-th RomanianFinish Seminar, Cluj-Napoca, August 2005;
  Communication: G. Kohr, **M. Kohr**, P. Curt, *Old and new results in the geometric function theory of several complex variables*

- **M. Kohr**, *Boundary value problems for the Stokes resolvent equations in bounded and exterior domains in* $\mathbb{R}^n$, seminar talk; Institut für Angewandte Analysis und Numerische Simulation, Stuttgart University, Germany, November 03, 2005

- Annual National Conference "Caius Iacob" Fluid Mechanics and Technical Applications, 25-26 November 2005, Bucharest;
  Communication: **M. Kohr**, *Boundary Value Problems for the Stokes Resolvent Equations*

- Complex and Harmonic Analysis, Salonic (Grecia), 25-27 May 2006;
  Communication: G. Kohr, **M. Kohr**, *Convex subordination chains in several complex variables. Applications*

- International Conference on Complex Analysis dedicated on the 75th birthday of Prof. P.T. Mocanu, 25-27 July 2006;
  Communication: G. Kohr, **M. Kohr**, *Convex subordination chains in several complex variables. Applications*

- International Conference on Applied Mathematics, Baia Mare, 21-24 September, 2006;
  Communication: G. Kohr, **M. Kohr**, *Loewner chains in one and higher dimensions*

- **M. Kohr**, *Stokes flow past a porous body*, seminar talk; Institut für Angewandte Analysis und Numerische Simulation, Stuttgart University, Germany, December 14, 2006

- Annual Congress of Fluid Mechanics "Caius Iacob", Brasov, 26-29 October 2006;
  Communication: **M. Kohr**, *Stokes flow past porous bodies*

- BETA 2007 Hannover, May 22-24;
  Invited talk: **M. Kohr**, W.L. Wendland, *Boundary integral equations for a three-dimensional Brinkman flow problem*

- 6th Congress of Romanian Mathematicians, Bucharest, June 28-July 4 2007;
  Communications: **M. Kohr**, *Boundary integral equations equations for a three-dimensional Brinkman flow problem*,
  G. Kohr, **M. Kohr**, *Asymptotically starlike and asymptotically spirallike mappings in several complex variables*

- ICIAM 07 (6th International Congress of Industrial and Applied Mathematics), Zurich, 16 July- 20July 2007;
  Invited lecture: **M. Kohr**, *Boundary-integral method for Stokes flow past porous bodies*

- International AMS-PTM Mathematics Conference, Warsaw, July 31-August 3 2007;
  Communication: G. Kohr, **M. Kohr**, *Convex subordination chains, asymptotically starlike and asymptotically spirallike mappings in* $\mathbb{C}^n$

- International Symposium on Geometric Function Theory and Applications, Istanbul, 20-24 August 2007;
  Communication: G. Kohr, **M. Kohr**, *Asymptotically starlike mappings in several complex variables*

- International Conference on Theory and Applications in Mathematics and Informatics (ICTAMI), Alba-Iulia, 30 August-2 September 2007;
  Communications: **M. Kohr**, W. Wendland, *Boundary integral equations for a Brinkman flow problem* (main speaker);
  G. Kohr, **M. Kohr**, *Univalent subordination chains in several complex variables. Geometric Aspects*

- 79^{th} Annual Meeting of the International Association of Applied Mathematics and Mechanics (GAMM 2008), Bremen (Germany), 31 March-4 April 2008;
  Communication: **M. Kohr**, G. Kohr, W.L. Wendland, G.P. Raja Sekhar, *Boundary integral equations for viscous incompressible flows in porous media or past porous bodies*

- 2008 One and Several Complex Variables Conference, Lexington (Kentucky, USA), 8-11 May 2008;
  Invited talk: **M. Kohr**, G. Kohr, *Spirallikeness and asymptotic spirallikeness in several complex variables*

- Analysis, PDEs and Applications on the occasion of the 70th birthday of Vladimir Maz'ya, June 30 - July 4 2008, Rome;
  Communication: **M. Kohr**, *Boundary integral method for a Stokes flow past porous bodies*

- INDAM Workshop on Holomorphic Iteration, Semigroups, and Loewner Chains, Rome, 9–12 September 2008;
  Communication: G. Kohr, **M. Kohr**, *New aspects in the theory of Loewner chains in several complex variables*

- **M. Kohr**, Boundary integral method for Stokes flow past porous bodies, seminar talk; Department of Mathematics, Free University of Berlin, October 1, 2008.

- 80^{th} Annual Meeting of the International Association of Applied Mathematics and Mechanics (GAMM), Gdansk (Poland), 9 - 13 February 2009;
  Communication: **M. Kohr**, *Boundary integral equations for* $2D$ *low Reynolds number viscous incompressible flows past porous bodies*

- The $4th$ Symposium on Analysis and PDEs, Purdue University, West Lafayette (USA), May 26–29 2009

- Modern Complex Analysis and Operator Theory and Applications, IV, El Escorial (Madrid), June 17-21, 2009;
  Communication: G. Kohr, **M. Kohr**, *Loewner chains and the generalized Loewner differential equation on the unit ball in* $\mathbb{C}^n$

- International Conference on Complex Analysis and Related Topics, The 12th Romanian-Finnish Seminar, August 17-21, 2009;
  Communication: **M. Kohr**, G.P. Raja Sekhar, W.L. Wendland, *Boundary integral equations for two-dimensional low Reynolds number flow past a porous body*

- International Conference on on Microfluidics and Complex Flows ECM 09, Tunis, November 5-6, 2009;
  Invited speaker: **M. Kohr**, *Transmission problems for Stokes and Brinkman operators on arbitrary Lipschitz domains. Applications to porous media flow problems*

- Mini-courses in Mathematical Analysis 2010, Padova, June 21-25, 2010;
  Communication: **M. Kohr**, *Boundary value problems for Brinkman operators on Lipschitz domains. Applications*

- NTHCA10 New Trends in Harmonic and Complex Analysis, June 29 - July 3, 2010, Bremen, Germany;
  Invited talk: **M. Kohr**, *Boundary value problems for Brinkman operators on Lipschitz domains. Applications*

- Workshop on Interfaces in Multiphase Flow, Stuttgart, July 1st - July 2nd, 2010;
  Invited speaker: **M. Kohr**, *Boundary value problems for Brinkman operators on Lipschitz domains - Applications*

- Mini-courses in Mathematical Analysis 2011, Padova, June 13-17, 2011;
  Invited speaker: **M. Kohr**, *Potential analysis for some pseudodifferential matrix type operators in Lipschitz domains on Riemannian manifolds. Applications*

- International Conference on Nonlinear Operators, Differential Equations and Applications (ICNODEA2011), Cluj-Napoca, July 5-8, 2011;
  Communication: **M. Kohr**, *Potential analysis for pseudodifferential matrix operators in Lipschitz domains on Riemannian manifolds. Applications*

- Complex and Harmonic Analysis 2011 (Charm 2011), Málaga, July 10-14, 2011;
  Invited talk: **M. Kohr**, *Potential analysis for pseudodifferential Brinkman operators on Lipschitz domains*

- International Conference on Theory and Applications in Mathematics and Informatics (ICTAMI 2011), July 21-24, 2011, Alba-Iulia;
  Invited parallel sections lecture: **M. Kohr**, *Transmission problems for pseudodifferential Brinkman operators on Lipschitz domains in compact Riemannian manifolds*

- International Symposium on Geometric Function Theory and Applications (GFTA 2011), Cluj-Napoca, September 4-8, 2011;
  Invited speaker: **M. Kohr**, *Potential analysis for elliptic boundary value problems in compact Riemannian manifolds*

- International SimTech Symposium Partial Differential Equations: Theory, Applications, Simulations, University of Stuttgart, October 6 - 7, 2011;
  Invited speaker: **M. Kohr**, *Potential analysis for transmission problems associated to some pseudodifferential matrix operators in arbitrary Lipschitz domains*

- Harmonic and Complex Analysis and its Applications, Puerto de la Cruz, Tenerife, Canary Islands, Spain, March 5 - 9, 2012;
  Invited parallel session lecture: **M. Kohr**, *Potential analysis for elliptic boundary value problems on Lipschitz domains in Riemannian manifolds*

- 9th International Conference on Harmonic Analysis and Partial Differential Equations, El Escorial, Madrid (Spain) June 11-15, 2012; contribution;
  M. Kohr, *Potential analysis for elliptic boundary value problems on Lipschitz domains in Riemannian manifolds*

- Mini-courses in Mathematical Analysis 2012, Padova, June 18-12, 2012;
  Invited talk: **M. Kohr**, *Potential analysis for elliptic boundary value problems on Lipschitz domains*

- International Conference on Complex Analysis and Related Topics. The 13th Romanian-Finnish Seminar, June 26-30, 2012, Ploieşti (Romania), lecture;
  M. Kohr, *Potential analysis for elliptic boundary value problems on Lipschitz domains*

- Tenth Advanced Course in Operator Theory and Complex Analysis, Sevilla, June 9th -13th, 2013, contributed talk;
  M. Kohr, *Poisson problems for semilinear elliptic systems in Lipschitz domains*

- 9th International ISAAC Congress, Krakow, August 5-9, 2013, lecture;
  M. Kohr, *Poisson problems for semilinear Brinkman systems in Lipschitz domains*

- 5th International Conference on Application of Porous Media, Cluj-Napoca, August 25-28, 2013;
  Plenary speaker: **M. Kohr**, *Poisson problems for semilinear Brinkman systems on Lipschitz domains. Applications*

- 9th International Symposium on Geometric Function Theory and Applications, Işsik University, Istanbul (Turkey), August 26-30, 2013, communication;
  M. Kohr, *Poisson problems for semilinear elliptic systems in Lipschitz domains. Applications*

- Mini-courses in Mathematical Analysis 2012, Padova, June 23-27, 2014;
  Invited talk: **M. Kohr**, *Boundary value problems of Robin-transmission type for the nonlinear Darcy-Forchheimer-Brinkman and Navier-Stokes systems. Applications*

- 25th International Workshop of Operator Theory and its Applications (IWOTA 2014), Amsterdam, July 14-18, 2014; Invited lecture in the Section Partial differential operators and potential method (organized by Roland Duduchava and Vladimir Rabinovich):
  M. Kohr, *Boundary value problems of Robin-transmission type for the nonlinear Darcy-Forchheimer-Brinkman and Navier-Stokes systems. Applications*

- Seminar talk, Institute for Applied Analysis and Numerical Simulation, Stuttgart University, May 28, 2015; **M. Kohr**, *Transmission problems for the Navier-Stokes and Darcy-Forchheimer-Brinkman systems in weighted Sobolev spaces on exterior Lipschitz domains in* $\mathbb{R}^3$

- Mini-courses in Mathematical Analysis 2015, Padova, June 22-26, 2015;
  Invited talk: **M. Kohr**, *Boundary value problems of transmission type for the Stokes and Darcy-Forchheimer-Brinkman systems in weighted Sobolev spaces on Lipschitz domains in* $\mathbb{R}^3$

- The Eighth Congress of Romanian Mathematicians, June 26 - July 1, 2015, Iaşi; Invited talk in the section Mechanics, Numerical Analysis, Mathematical Models in Science;
  M. Kohr, *Boundary value problems of transmission type for the Navier-Stokes and Darcy-Forchheimer-Brinkman systems in weighted Sobolev spaces*

- Tenth UK Conference on Boundary Integral Methods (UKBIM 2015), 13-14 July 2015, Brighton, UK; Communication: **M. Kohr**, *Transmission problems for the Stokes and Darcy-Forchheimer-Brinkman systems in weighted Sobolev spaces on Lipschitz domains*

- International Conference on Nonlinear Operators, Differential Equations and Applications (ICNODEA), July 14-17, 2015, Cluj-Napoca, Romania; Invited speaker: **M. Kohr**, *Transmission problems for the Navier-Stokes and Darcy-Forchheimer-Brinkman systems in weighted Sobolev spaces on Lipschitz domains*

- Mathematics of Finite Elements and Applications (MAFELAP 2016), Brunel University London, UK, June 14 - 17, 2016; Invited speaker in the mini-symposium Boundary-Domain Integral Equations organised by Sergey E. Mikhailov and David Natroshvili; **M. Kohr**, *Boundary value problems for a nonlinear Brinkman system with variable coeffcients in Sobolev and Besov spaces on Lipschitz domains*

- International Conference on Complex Analysis and Related Topics. The 14th Romanian-Finnish Seminar, June 20 - 24 2016, Bucharest, Romania; Contributed talk: **M. Kohr**, *Boundary value problems for nonlinear Brinkman systems in Lipschitz domains*

- The 11th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Orlando, Florida, USA, July 1-5, 2016; Invited speaker in the special session "Theory and applications of boundary-domain integral and pseudodifferential operators" organised by Sergey E. Mikhailov and David Natroshvili; **M. Kohr**, *Boundary value problems for nonlinear Brinkman and Navier-Stokes equations with variable coefficients in Lipschitz domains*

- 14th International Conference on Integral Methods in Science and Engineering (IMSE 2016), 25 - 29 July 2016, Padova, Italy; **M. Kohr**, Boundary value problems for nonlinear Brinkman systems in Lipschitz domains (conference talk); member of the Organizing Committee and Program Committee

- 13ème Colloque Franco-Roumain en Mathématiques Appliquées, 25-29 August 2016, Iaşi, Romania; Plenary speaker: **M. Kohr**, *Boundary value problems for nonlinear Brinkman and Navier-Stokes equations with variable coefficients in Lipschitz domains*

- International Conference on Complex Dynamics: Iterations, Foliations and Evolutions, Oslo (Norway), 19 19 - 23 June, 2017; **G. Kohr**, joint lecture with **M. Kohr**

- 11th Congress of International Society for Analysis, its Applications and Computations (ISAAC), Växjö, Sweden, August 14-18, 2017; Invited speaker in the special session "Theory and applications of boundary-domain integral and pseudodifferential operators" organised by Sergey E. Mikhailov and David Natroshvili; **M. Kohr**, *Boundary-domain integral equations for variable coefficient Brinkman systems on Lipschitz domains*

- XIXth International Conference on Analytic Functions and Related Topics (AF&RT'18), Rzeszów (Poland), 2529 June 2018; Invited speaker: **M. Kohr**, *Boundary value problems for nonlinear Brinkman systems in Lipschitz domains*

- 15th International Conference on Integral Methods in Science and Engineering (IMSE 2018), 16 - 20 July 2018, Brighton (UK); Invited talk in the mini-symposium "Boundary-Domain Integral Equations" organised by Sergey E. Mikhailov; **M. Kohr**, *Layer potentials and Poisson problems for the Stokes system with nonsmooth coefficients in Sobolev and Besov spaces*

- International Workshop on Conformal Dynamics and Loewner Theory, 5-7 September 2018, Tohoku University, Sendai (Japan); Plenary speaker: **M. Kohr**, *Layer potentials and Poisson problems for elliptic systems in Lipschitz domains. Applications*

- Conference on Analytic Low-Dimensional Dynamics: a celebration of Misha Lyubich's 60th birthday, May 27 - June 7, 2019, The Fields Institute for Research in Mathematical Sciences, Toronto (Canada); invited.

- 9th Congress of Romanian Mathematicians, June 28-July 3, 2019, Galaţi, Romania; Co-organizer (together with **Victor Nistor**, France, and **Mihai Putinar**, USA) of the special session *Integral Operators and Layer Potentials*; Invited speaker in the same session: **M. Kohr**, *Layer potentials and boundary value problems for the Stokes system with L^∞-coefficients*

- 12th International ISAAC Congress, University of Aveiro, Aveiro, Portugal, July 29 - August 2, 2019; Invited talk in the Special Session *Theory and Applications of Boundary-Domain Integral and Pseudodifferential Operators* organised by Sergey E. Mikhailov and David Natroshvili: **M. Kohr**, *Layer potentials and exterior boundary problems in weighted Sobolev spaces for the Stokes system with L^∞ elliptic coefficient tensor*

- Mini-course and Workshop on Dirichlet Spaces, July 13 - 16, 2021, The Fields Institute (Toronto); **G. Kohr**, **M. Kohr**, *Extremal results, approximation properties, and related problems associated with the Loewner differential equation in $\mathbb{C}^n$*

- 13th International ISAAC Congress, Ghent University, Belgium, August 2 - August 6, 2021; Invited talk in the Special Session *Complex Variables and Potential Theory* organized by Tahir Aliyev Azeroglu, Massimo Lanza de Cristoforis, Anatoly Golberg, Sergiy Plaksa: **G. Kohr**, **M. Kohr**, *Extremal results and related problems associated with the Loewner differential equation in $\mathbb{C}^n$*

- 16th International Symposium on Geometric Function Theory and Applications (GFTA 2021), 15–18 October 2021, Sibiu, Romania; Invited speaker

- 19th Söllerhaus Workshop Fast Boundary Element Methods in Industrial Applications dedicated to the 85th birthday of Professor Wolfgang L. Wendland, 17–20.10.2021, Söllerhaus (Kleinwalsertal), Austria: **M. Kohr**, *Layer potentials for the anisotropic Stokes system and applications* (Invited talk)

- Main organizer of the **Workshop dedicated to the memory of Professor Gabriela Kohr**: **Geometric Function Theory in Several Complex Variables and Complex Banach Spaces**, on the ZOOM platform, December 1-3, 2021, at the Faculty of Mathematics and Computer Science, Babeş-Bolyai University, Cluj-Napoca, Romania. http://math.ubbcluj.ro/workshop_gk/

- XVeme Colloque Franco-Roumain de mathématiques appliquées, 29 August – 2 September 2022, Toulouse, France. Co-organizer, together with Victor Nistor (Metz) and Pierre Bousquet (Toulouse), of the special session *Analyse et Applications*

- Conference Aspect'22: Asymptotic Analysis & Spectral Theory, 26–30 September 2022, Oldenburg, Germany; Invited speaker: **M. Kohr**, *Boundary value problems and spectral theory on manifolds with boundary and cylindrical ends*

- 14th Joint Conference on Mathematics and Computer Science Cluj-Napoca, November 24-27, 2022, Plenary talk: **G. Kohr**, **M. Kohr**, *Extremal results and related problems associated with the Loewner differential equation in $\mathbb{C}^n$*

- Main organizer of the **2nd Edition of the Workshop dedicated to the memory of Professor Gabriela Kohr**: **Geometric Function Theory in Several Complex Variables and Complex Banach Spaces**, on the ZOOM platform, December 1-3, 2022, at the Faculty of Mathematics and Computer Science, Babeş-Bolyai University, Cluj-Napoca, Romania. http://math.ubbcluj.ro/workshop_gk/

- Mini-courses in Mathematical Analysis, Padova, June 19-23, 2023. Invited speaker: **M. Kohr**, *The Stokes operator on manifolds with cylindrical ends.*

- Co-organizer, together with Lucian Beznea, Cezar Joiţa, and Eugen Mihăilescu of the session *Real and Complex Analysis, Potential Theory*, The Tenth Congress of Romanian Mathematicians, June 30 - July 5, 2023, Piteşti, Romania.

- Organizer together with Victor Nistor (Metz, France) of the Special session on *Integral Operators and Applications*, 10th Congress of Romanian Mathematicians, June 30–July 5, 2023, Piteşti, Romania.

- The Tenth Congress of Romanian Mathematicians, June 30 - July 5, 2023, Piteşti, Romania. Invited speaker in the Section "Ordinary and Partial Differential Equations, Controlled Differential Systems". **M. Kohr**, *The Stokes operator on manifolds with cylindrical ends.*

- Summer School in Geometric Analysis, Bruxelles, 28th August - 1st September, 2023. Invited research talk: **M. Kohr**, *On some elliptic operators on manifolds with cylindrical ends* (**dedicated to the memory of Professor Gabriela Kohr**).

- Main organizer of the **3rd Edition of the Workshop dedicated to the memory of Professor Gabriela Kohr**: **Geometric Function Theory in Several Complex Variables and Complex Banach Spaces**, on the ZOOM platform, December 1-3, 2023, at the Faculty of Mathematics and Computer Science, Babeş-Bolyai University, Cluj-Napoca, Romania. http://math.ubbcluj.ro/workshop_gk/

- The 29th International Conference in Operator Theory, Timişoara, Romania, July 1-5, 2024. Invited speaker: **M. Kohr**, *On some elliptic operators on manifolds with cylindrical ends.*

- Conference "Perturbations, Asymptotics, and related Tools", Matera, Italy, September 3-6, 2024. Plenary speaker: **M. Kohr**, *On some elliptic operators on manifolds with cylindrical ends.*

- Conference "Asymptotic Analysis and Spectral Theory 2024", Metz (France), 23-27 September 2024. Invited speaker : **M. Kohr**, *On some elliptic operators on manifolds with cylindrical ends.*

- Main organizer of the **4th Edition of the Workshop dedicated to the memory of Professor Gabriela Kohr**: **Geometric Function Theory in Several Complex Variables and Complex Banach Spaces**, on the ZOOM platform, November 29 - December 1, 2024, at the Faculty of Mathematics and Computer Science, Babeş-Bolyai University, Cluj-Napoca, Romania. http://math.ubbcluj.ro/workshop_gk/

- International Conference in Analysis, the 16th Romanian Finnish Seminar, June 24-27, 2025, Alba Iulia, Romania. Plenary talk: **M. Kohr**, *Recent contributions to Geometric Function Theory in finite and infinite dimensional spaces: the legacy of* **Gabriela Kohr**.

- Main organizer of the **5th Edition of the Workshop dedicated to the memory of Professor Gabriela Kohr**: **Geometric Function Theory in Several Complex Variables and Complex Banach Spaces**, on the ZOOM platform, November 28 - November 30, 2025, at the Faculty of Mathematics and Computer Science, Babeş-Bolyai University, Cluj-Napoca, Romania. http://math.ubbcluj.ro/workshop_gk/

- International Workshop on Harmonic Analysis and Operator Theory, Bucharest, Romania, June 9 - 12, 2026. Invited speaker: **M. Kohr**, *Invertibility of a modified Stokes operator and of its layer potential operators on domains with cylindrical ends.*

- 17th International Conference on Integral Methods in Science and Engineering, Matera, Italy, 20 - 24 July. **M. Kohr**, *Well-posedness of a generalized Stokes operator on domains with cylindrical ends via layer-potentials.*

- Pseudodifferential Techniques in Singular Analysis, Mathematisches Institut Georg-August-Universität Göttingen, Göttingen, Germany, August 31 - September 4, 2026. Invited speaker: **M. Kohr**, *Pseudodifferential operators, boundary value problems, and layer potentials on manifolds with cylindrical ends.*

- Co-organizer, together with Lucian Beznea, Cezar Joiţa, and Eugen Mihăilescu of the session *Real and Complex Analysis, Potential Theory*, The Eleventh Congress of Romanian Mathematicians July 2 - 7, 2027 Alba Iulia, Romania.