CURRICULUM VITAE

Personal data

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

- PhD in mathematics, Babeş-Bolyai University, 1996
- PhD thesis: *Contributions to the theory of univalent functions*, 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

- The *Spiru Haret* award of the Romanian Academy in 2005 for the monograph: I. Graham, **G. Kohr**, *Geometric Function Theory in One and Higher Dimensions*, Marcel Dekker Inc., New York, Basel, 2003.
- The Babeş-Bolyai University academic award in 2003 for the monograph: I. Graham, **G. Kohr**, *Geometric Function Theory in One and Higher Dimensions*, Marcel Dekker Inc., New York, Basel, 2003.
- The *G. Călugăreanu* award for the PhD thesis in 1996.
- Award for scientific excellence in research for the academic year 2013–2014, Faculty of Mathematics and Computer Science, Babeş-Bolyai University.
- Award for *Scientific Excellence* in research for the academic year 2019–2020, Faculty of Mathematics and Computer Science, Babeş-Bolyai University.

Competence domains and significant results

A. Geometric function theory in several complex variables

The main results in this direction refer to:

- **Extensions of classical results in the theory of univalent functions to the case of several complex variables**
  - Univalence criteria for applications of class C^1 on the unit ball and strictly pseudo-convex domains in $\mathbb{C}^n$ for which the Bergman kernel becomes infinite on the boundary.
  - Starlikeness and convexity of order α on the Euclidean unit ball in $\mathbb{C}^n$: growth and covering results, and coefficient bounds.
  - Alpha convex mappings on the Euclidean unit ball in $\mathbb{C}^n$: necessary and sufficient conditions, geometric and analytic characterizations.
  - Strongly starlikeness of order α to the n-dimensional case: growth and covering results, and coefficient bounds.
  - Spirallike mappings of type α on the unit ball in $\mathbb{C}^n$: geometric and analytic characterizations.
  - Covering, growth and distortion results (most of them being sharp), as well as coefficient bounds for certain compact subclasses of normalized biholomorphic mappings on the unit ball in $\mathbb{C}^n$ (starlikeness, convexity, almost-starlikeness of order $1/2$, spirallikeness of type α).
  - Higher dimensional versions of classical results in the theory of linear invariant families (L.I.F's) of one complex variable. Necessary and sufficient conditions of univalence for mappings in L.I.F's (two-point distortion results).
  - Two-point distortion results for affine linear invariant familes of harmonic and plurihar-monic mappings.
  - Geometric and analytic properties of certain subclasses of $S(B^n)$ (the class of normalized biholomorphic mappings on the Euclidean unit ball in $\mathbb{C}^n$) generated by the (generalized) Roper-Suffridge and the Pfaltzgraff-Suffridge operators:

    (i) Starlikeness and convexity properties associated with the Roper-Suffridge extension operator.

    (ii) Growth and covering results, L.I.F's generated the (generalized) Roper-Suffridge extension operator.

    (iii) Bloch mappings and the Roper-Suffridge extension operator.

    (iv) Loewner chains associated with the Roper-Suffridge extension operator.

    (v) Extreme points and support points associated with certain compact subsets of $S(B^n)$ generated by the Roper-Suffridge extension operator.

- **The theory of Loewner chains of several complex variables**
  - Compactness of the Carathéodory class on the unit ball in $\mathbb{C}^n$ (the n-dimensional version of the class of holomorphic functions on the unit disc with positive real part).
  - The n-dimensional version of the well known Carathéodory result, concerning the equiv-alence between the kernel convergence and compact convergence of univalent functions.
  - Loewner chains and the Loewner differential equation in $\mathbb{C}^n$.
  - Existence and uniqueness of solutions to the generalized Loewner differential equation in $\mathbb{C}^n$.

- Analytic and geometric characterizations of various subclasses of $S(B^n)$, by using the method of Loewner chains.
- Geometric characterizations of Loewner chains on the unit ball in $\mathbb{C}^n$:

  (i) Mappings which have parametric representation on the unit ball in $\mathbb{C}^n$. Growth, distortion results and coefficient bounds.

  (ii) Asymptotically starlike/spirallike mappings on the Euclidean unit ball in $\mathbb{C}^n$.
- Asymptotically spirallike mappings and non-normalized univalent subordination chains in several complex variables. Geometric aspects.
- Sufficient conditions for quasiregular holomorphic mappings, which can be imbedded in Loewner chains, to have quasiconformal extensions of $\mathbb{R}^{2n}$ onto itself.
- General and abstract constructions of Loewner chains on hyperbolic complex manifolds.
- Extreme points, support points and the Loewner variation in several complex variables.
- Approximation properties of biholomorphic mappings with parametric representation on the unit ball in $\mathbb{C}^n$ by automorphisms of $\mathbb{C}^n$ and smooth quasiconformal diffeomeomorphisms of $\mathbb{C}^n$ onto itself ($n \geq 2$).

- **The theory of differential subordinations in $\mathbb{C}^n$. General results**
  - Extensions of Jack's, Miller's and Mocanu's lemma on the unit ball and pseudoconvex domains in $\mathbb{C}^n$.
  - Applications of differential subordinations to the analytical characterizations of certain subclasses of univalent mappings on the unit ball in $\mathbb{C}^n$.

B. Geometric function theory in complex Banach spaces

The main results in this direction refer to:

- The study of various subclasses of $S(B)$ (the family of normalized biholomorphic mappings on B, where B is the unit ball in a complex Banach space): spirallikeness of type $\alpha \in (-\pi/2, \pi/2)$, convexity and Φ-likeness. Geometric and analytic aspects.
- Sharp growth and distortion results for normalized convex (biholomorphic) mappings on the unit balls of complex Hilbert spaces.
- Infinite-dimensional versions (the case of reflexive complex Banach spaces) of classical results in the theory of Loewner chains and the Loewner differential equation.
- Linear invariant families on the unit balls in complex Hilbert spaces.

C. Geometric function theory of one complex variable. Special classes of univalent functions

The main results in this direction refer to:

- Univalence criteria for analytic and nonanalytic functions in $\mathbb{C}$;
- Applications of the theory of differential subordinations to the study of certain subclasses of univalent functions on the unit disc.
- New subclasses of univalent functions on the unit disc in $\mathbb{C}$ generated by the methods of differential subordinations and univalent subordination chains (Loewner chains).

Member of the following scientific and professional organizations:

Romanian Mathematical Society
American Mathematical Society
Member of the National Committee for evaluation of the PhD theses and academic degrees (CNAT-DCU) (2011–2012)
Member of the Scientific Committee of Babeş-Bolyai University, Cluj-Napoca (2020-)

Teaching activity

I have been teaching the following subjects (theory and problems) since 1991:

- Several complex variables (master and PhD students)
- Special topics in complex analysis (master and PhD students)
- Complex analysis in one and higher dimensions (master and PhD students)
- Special topics of real and complex analysis (master students)
- Geometric function theory in several complex variables (master and PhD students)
- Complex analysis (undergraduate students)
- Univalent functions and differential subordinations (master students)
- Geometric function theory (undergraduate students)
- Applications of complex analysis in physics (undergraduate students)
- Special topics in real analysis (master students)
- Topology and measure theory (undergraduate students)
- Numerical analysis (undergraduate students)

Graduate students

(1) Andrica D. Teodora (căs. Chirilă), Ph.D Babeş-Bolyai University, 2013

(2) Iancu Mihai, Ph.D Babeş-Bolyai University, 2015

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

Member in the editorial board of the following journals:

- Member in the editorial board of Journal of Inequalities in Pure and Applied Mathematics (JIPAM) (Australia) (2005–2010).
- Member in the editorial board of the journal Mathematica (Cluj) (2007–).

Reviewer to: *Proceedings of the American Mathematical Society, Journal of Mathematical Analysis and Applications, International Journal of Mathematics and Mathematical Sciences, Glasnik Matematiki, Studia* (Mathematica) Univ. Babeş-Bolyai, *Mathematica* (Cluj), *Soochow Math. J., Publicationes Inst. Math.* (Beograd), *Rocky Mount. J. Math, Applied Math. Letters, Journal of Inequalities and Applications, Computational Methods and Function Theory, Computers and Mathematics with Applications, J. Australian Math. Soc. Series A, Mathematische Nachr., Science China Math., Complex Variables and Elliptic Equations, Bull. Belgian Math. Soc.-Simon*

Stevin, Note di Matematica, Applied Mathematics and Computation, Mathematical and Computer Modelling, Complex Analysis and Operator Theory, Constructive Approximation, Contemporary Math. (AMS), Taiwanese Journal of Mathematics, Annales Univ. M. Curie-Sklodowska, Filomat, Results in Mathematics, Annales Academiae Scientiarum Fennicae Mathematica, Analysis and Mathematical Physics.

- Reviewer to Mathematical Reviews and Zentralblatt für Mathematik.

Research collaborators

- I. Graham, Department of Mathematics, University of Toronto, Toronto, Canada
- H. Hamada, Faculty of Science and Engineering, Kyushu Sangyo University, Fukuoka, Japan
- F. Bracci, Department of Mathematics, University "Tor Vergata", Rome, Italy
- M. Kohr, Faculty of Mathematics and Computer Science, Babeş-Bolyai University, Cluj-Napoca, Romania
- P.L. Duren, Department of Mathematics, University of Michigan, Ann Arbor, USA
- Jerry R. Muir Jr., Department of Mathematics, University of Scranton, Scranton, PA, USA
- T.J. Suffridge, Department of Mathematics, University of Kentucky, Lexington, USA
- C.H. Chu, Queen Mary, University of London, London, UK
- T. Honda, Hiroshima Institute of Technology, Hiroshima, Japan
- J.A. Pfaltzgraff, Department of Mathematics, Chapel Hill, University of North Carolina, USA
- P. Liczberski, Technical University of Lodz, Lodz, Poland
- M. Chuaqui, Facultad de Matemáticas, P. Universidad Católica de Chile, Casilla 306, Santiago 22, Chile
- R. Hernández, Universidad Adolfo Ibáñez, Facultad de Ciencias y Tecnología, Av. Padre Hurtado 750, Viña del Mar, Chile
- P. Curt, Faculty of Economics and Business Administration, Babeş-Bolyai University, Cluj-Napoca, Romania
- M. Iancu, Faculty of Mathematics and Computer Science, Babeş-Bolyai University, Cluj-Napoca, Romania
- P.T. Mocanu, Faculty of Mathematics and Computer Science, Babeş-Bolyai University, Cluj-Napoca, Romania
- I. Şerb, Faculty of Mathematics and Computer Science, Babeş-Bolyai University, Cluj-Napoca, Romania

Research visits

- 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.
- Research visit to Brunel University London, Department of Mathematics, February 2–February 15, 2020, 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 Prof. 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 08–August 18, 2018, invited by Prof. Sergey E. Mikhailov.
- Research visit to the University of Padova, Department of Mathematics, July 06–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.
- 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.
- Research visit to the University of Padova, Department of Mathematics, November 27–December 03, 2016, invited by Professor Massimo Lanza de Cristoforis.
- Research visit to the University of Toronto, Department of Mathematics, August 13–August 26, 2016, supported by a grant of the Romanian National Authority for Scientific Research, CNCS-UEFISCDI, project number PN-II-ID-PCE-2011-3-0899, director Professor Gabriela 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-2011-3-0899 (director Professor Gabriela Kohr); invited by Professor Massimo Lanza de Cristoforis.
- 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-2011-3-0899, director Professor Gabriela Kohr (invited by Professor Ian Graham).
- 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-2011-3-0899 (director Professor Gabriela 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-2011-3-0899 (director Professor Gabriela 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-2011-3-0899 (director Professor Gabriela 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-2011-3-0899 (director Professor Gabriela 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-2011-3-0899 (director Professor Gabriela 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-2011-3-0899 (director Professor Gabriela 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-2011-3-0899 (director Professor Gabriela 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-2011-3-0899 (director Professor Gabriela 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-2011-3-0899 (director Professor Gabriela 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 8-15, 2012, supported by a grant of the Romanian National Authority for Scientific Research, CNCS-UEFISCDI, project number PN-II-ID-PCE-2011-3-0899 (director Professor Gabriela 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-2011-3-0899 (director Professor Gabriela 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-2011-3-0899 (director Professor Gabriela 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-2011-3-0899 (director Professor Gabriela 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 (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 the Institute for Applied Analysis and Numerical Simulation of the University of Stuttgart, partially supported by the research grant PN-II-ID-524/2007 (Director Professor Gabriela Kohr): July 1-July 6 2010 (invited by Professor W.L. Wendland).

- 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-524/2007, Director Professor Gabriela Kohr, and Natural Sciences and Engineering Research Council of Canada grant A9221, Director Professor Ian Graham (invited by Professor Ian Graham).

- 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 grants PN-II-ID-524/2007 (Director Professor Gabriela Kohr) and 525/2007 (Director Professor Mirela Kohr): July 2009 and August 2009 (invited by Professor W.L. Wendland).

- Research visit to the Institute for Applied Analysis and Numerical Simulation of the University of Stuttgart, supported by the research grant: UEFISCSU Grant PN-II-ID-524/2007 (Director Professor Gabriela Kohr): March 2008 (invited by Professor W.L. Wendland).

- Research visit to Free University of Berlin, Department of Mathematics, supported by the research grant: UEFISCSU Grant PN-II-ID-524 (Director Professor Gabriela 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, invited by Professor W. L. Wendland, November 2005; December 2006.
- Visiting professor to Tokyo Denki University, invited by Professor K. Tsurumi, February-March 1999.
- International Banach Center, Warsaw, 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.

Director of the following research grants:

1. CNCSIS Grant of type AT (2001-2002):
HOLOMORPHIC MAPPINGS OF ONE AND SEVERAL COMPLEX VARIABLES. APPLICATIONS
2. CNCSIS Grant of type A code **339** (2004-2006):
CONTRIBUTIONS IN THE GEOMETRIC FUNCTION THEORY OF ONE AND SEVERAL COMPLEX VARIABLES
3. CNCSIS Grant type A code CNCSIS **1472** (2007-2008):
MODERN PROBLEMS IN THE THEORY OF UNIVALENT FUNCTIONS OF ONE AND SEVERAL COMPLEX VARIABLES. APPLICATIONS
4. UEFISCSU-CNCSIS Grant PN-II-ID **524** (2007-2010):
LOEWNER CHAINS AND DIFFERENTIAL SUBORDINATIONS FOR FUNCTIONS OF ONE AND SEVERAL COMPLEX VARIABLES. QUASICONFORMAL EXTENSIONS AND APPLICATIONS IN FLUID MECHANICS
5. CNCS-UEFISCDI Grant PN-II-ID-PCE-2011-3-0899 (2011-2016):
Geometric and analytic aspects of biholomorphic mappings in $\mathbb{C}^n$ and complex Banach spaces
6. GSCE-30250/22.01.2015 Grant for scientific excellence (2015), Babeş-Bolyai University:
Extremal problems for mappings with generalized parametric representation on the unit ball in $\mathbb{C}^n$

- Romanian Ministry of Education and Research, CEEX Program, Project 2-CEx06-11-10/2006, member

Conference organizing

1. Member in the scientific committee of the International Symposium on Geometric Function Theory and Applications (GFTA 2011), 4–8 September, 2011, Cluj-Napoca, Romania
2. Member in the Organizing Committee of the International Conference on Complex Analysis and Related Topics. The 13th Romanian-Finnish Seminar, June 26–30, 2012, Ploiesti, Romania.

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

4. Member in the scientific committee of the section Real and Complex Analysis, Potential Theory, The Eighth Congress of Romanian Mathematicians, June 26–July 1, 2015, Iaşi, Romania.

5. Member in the Organizing Committee of the International Conference on Complex Analysis and Related Topics. The 14th Romanian-Finnish Seminar, June 20–24, 2016, Bucharest, Romania.

6. Member in the scientific committee of the XIII-ème Colloque Franco-Roumain de Mathématiques Appliquées, August 25–29, 2016.

7. Member in the Scientific Committee of 12th International Symposium on Geometric Function Theory and Applications (GFTA 2016), Alba-Iulia, Romania, 25–28 August, 2016.

8. Member in the Scientific and Organizing Committee INdAM Meeting "Geometric Function Theory in Higher Dimension", Cortona (Italy), 5–9 September, 2016.

9. Member in the Scientific Committee of the section Real and Complex Analysis, Potential Theory, The Ninth Congress of Romanian Mathematicians, Galaţi (Romania), June 28–July 3, 2019.

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: **G. Kohr**, M. Kohr-Ile, *Partial differential subordinations and inequalities for mappings of several complex variables*

- German Congress of Applied Mathematics and Mechanics, Braunschweigh, 4-8 April 1994;
  Communication: M. Kohr-Ile, **G. Kohr**, *An application of* (P, Q)*-analytic functions to study of axially symmetric ideal compressible jet*

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

- International Congress of Industrial and Applied Mathematics (ICIAM), Hamburg, 3-7 July 1995;
  Communications: **G. Kohr**, M. Kohr-Ile, *Some sufficient conditions of univalence* and
  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: **G. Kohr**, *New developments in geometric function theory of one or several complex variables*

- Annual conference of the Romanian Mathematical Society, Bucharest, 29.05-01.06.1997;
  Communication: **G. Kohr**, *Contributions to the theory of univalent functions of several complex variables*

- Annual conference of the Romanian Mathematical Society, Cluj-Napoca, 27.05-31.05.1998;
  Communication: **G. Kohr**, *Univalent functions of several complex variables*

- International Congress of Mathematicians (ICM), Berlin, 18-27 August 1998;
  Poster: **G. Kohr**, *Univalent mappings of several complex variables*

- XII-th Conference on Analytic Functions, Lublin, 30.08-04.09.1998;
  Communication: **G. Kohr**, *On some univalent mappings in* $\mathbb{C}^n$

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

- 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*

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

- Computational Methods in Function Theory (CMFT), Aveiro, 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: **G. Kohr**, *Parametric representation in several complex variables*

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

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

- The 5th International Congress of Romanian Mathematicians, Piteşti, June 2003;
  Communication: **G. Kohr**, *Loewner chains in several complex variables. Applications*

- 4th European Congress of Mathematics, Stockholm, June 2004; Poster: **G. Kohr**, *Loewner chains and the Loewner differential equation in several complex variables. Applications*

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

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

- The XX-th Nevanlinna Colloquium, Lausanne, August 2005;
  Poster: **G. Kohr**, *Loewner chains and the Loewner differential equation in several complex variables. Applications*

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

- Complex and Harmonic Analysis, Thessaloniki, 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 75-th birthday of Professor P.T. Mocanu, Cluj-Napoca, 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*

- 6th Congress of Romanian Mathematicians, Bucharest, June 28-July 4 2007, **invited speaker**;
  Communication: **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-20 July 2007;
  Poster: **G. Kohr**, *Modern and recent contributions in the theory of Loewner chains of several complex variables*

- International AMS-PTM Mathematics Conference, Warsaw, July 31-August 3 2007, **invited talk**;
  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;
  Communication: **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: **G. Kohr**, *New results in the theory of univalent subordination chains in several complex variables. Geometric aspects*

- Analysis, PDEs and Applications on the occasion of the 70th birthday of Vladimir Maz'ya, 30 June-4 July 2008, Rome;
  Communication: **G. Kohr**, *New results in the theory of differential subordination chains in several applications. Applications*

- International Conference on Complex Analysis and Related Topics. The XI-th Romanian-Finnish Seminar, Alba Iulia, Romania, August 14-19, 2008, **invited talk**;
  G. Kohr, M. Kohr, *Subordination chains and generalized parametric representation in several complex variables*

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

- **G. Kohr**, *New aspects in the theory of Loewner chains in several complex variables*, seminar talk; Department of Mathematics, Free University of Berlin, October 1, 2008

- **G. Kohr**, *A survey of recent results in the theory of Loewner chains in several complex variables*, seminar talk; Università degli Studi di Roma "Tor Vergata", Dipartimento di Matematica, March 16, 2009

- 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, **invited talk**;
  G. 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, Turku (Finland), August 17-21, 2009, **invited speaker**;
  G. Kohr, *Solutions for the generalized Loewner differential equation and spirallike mappings in* $\mathbb{C}^n$.

- International Conference on Microfluidics and Complex Flows, November 5-6, 2009, Tunis;
  Communication: **G. Kohr**, *Loewner chains and the Loewner differential equation in one and several complex variables. Applications.*

- NTHCA10 "New Trends in Harmonic and Complex Analysis", June 29-July 3, 2010, Bremen, **invited talk**;
  G. Kohr, *Parametric representation and Loewner chains in several complex variables.*

- "Second Bavaria-Québec Mathematical Meeting", University of Wuerzburg, November 22-25, 2010, Wuerzburg, **invited speaker**;
  G. Kohr, *Extreme points, support points and Loewner variation in higher dimensions.*

- Mini-courses in Mathematical Analysis (2011), Padova, June 13-17, 2011, **invited talk**;
  G. Kohr, *Loewner chains and the Loewner differential equation in several complex variables.*

- International Conference on Nonlinear Operators, Differential Equations and Applications (ICNODEA 2011), Cluj-Napoca, July 5-8, 2011, communication;
  G. Kohr, *Modern contributions in theory of Loewner chains and the Loewner differential equation in several complex variables.*

- Complex and Harmonic Analysis 2011 (Charm 2011), July 10 - 14, 2011, Málaga (Spain), **invited talk**;
  G. Kohr, *Extreme points, support points and univalent subordination chains in* $\mathbb{C}^n$.

- International Conference on Theory and Applications in Mathematics and Informatics (ICTAMI 2011), July 21-24, 2011, Alba-Iulia, **invited speaker**;
  G. Kohr, *Extreme points, support points and the Loewner variation in* $\mathbb{C}^n$.

- International Symposium on Geometric Function Theory and Applications (GFTA 2011), September 4-8 2011, Cluj-Napoca, **main speaker**;
  G. Kohr, *Extreme points and support points associated with univalent subordination chains on the unit ball in* $\mathbb{C}^n$. *Applications.*

- Harmonic and Complex Analysis and its Applications, Puerto de la Cruz, Tenerife, Canary Islands, Spain, March 5-9, 2012, **invited parallel session lecture**;
  G. Kohr, *Geometric and analytic aspects of Loewner chains in* $\mathbb{C}^n$ *and complex Banach spaces.*

- 9th International Conference on Harmonic Analysis and Partial Differential Equations, El Escorial, Madrid (Spain), June 11-15, 2012; contribution;
G. Kohr, *The Loewner differential equation in several complex variables. Applications.*

- Mini-courses in Mathematical Analysis 2012, Padova, June 18-12, 2012, **invited talk**;
G. Kohr, *Geometric and analytic approaches of Loewner differential equations in* $\mathbb{C}^n$.

- International Conference on Complex Analysis and Related Topics. The 13th Romanian-Finnish Seminar, June 26-30, 2012, Ploieşti (Romania), **invited parallel session lecture**;
G. Kohr, *Geometric and analytic approaches of Loewner chains and Loewner differential equations in* $\mathbb{C}^n$.

- Seminar talk, University of Padova, Department of Mathematics, November 14, 2012;
G. Kohr, *Geometric and analytic approaches of Loewner chains in several complex variables. Applications.*

- Tenth Advanced Course in Operator Theory and Complex Analysis, Sevilla, June 9-13, 2013, contributed talk;
G. Kohr, *Extremal properties associated with the generalized Loewner differential equation in* $\mathbb{C}^n$.

- Joint International Meeting of the AMS and the Romanian Mathematical Society, June 27-30, 2013, Alba Iulia (Romania), **invited parallel session lecture**;
G. Kohr, *Extremal properties associated with Loewner chains and the Loewner differential equation on the unit ball in* $\mathbb{C}^n$.

- 9th International ISAAC Congress, Krakow, August 5–9, 2013, lecture;
G. Kohr, *Extremal properties associated with the generalized Loewner differential equation in* $\mathbb{C}^n$.

- 9th International Symposium on Geometric Function Theory and Applications, Işik University, Istanbul (Turkey), August 26-30, 2013, **invited speaker**;
G. Kohr, *Loewner chains and extremal problems for bounded biholomorphic mappings with parametric representation in* $\mathbb{C}^n$.

- **G. Kohr**, *Loewner chains and extremal problems for biholomorphic mappings with parametric representation in* $\mathbb{C}^n$, seminar talk; University of Wuerzburg, Department of Mathematics, November 14, 2013.

- Mini-courses in Mathematical Analysis 2012, Padova, June 23-27, 2014, **invited talk**;
G. Kohr, *The generalized Loewner differential equation associated to univalent subordination chains in* $\mathbb{C}^n$ *and complex Banach spaces. Applications.*

- International Conference on Mathematics and Computer Science (MACOS 2014), Braşov, June 26-28, 2014, **invited talk**;
G. Kohr, M. Kohr, *The generalized Loewner differential equation in* $\mathbb{C}^n$ *and reflexive complex Banach spaces.*

- 25th International Workshop of Operator Theory and its Applications (IWOTA 2014), Amsterdam, July, 14-18, 2014; contributed talk;
G. Kohr, *The generalized Loewner differential equation associated to univalent subordination chains in* $\mathbb{C}^n$ *and complex Banach spaces. Applications.*

- Seminar talk, Istanbul Analysis Seminars, December 12, 2014;
G. Kohr, *The generalized Loewner differential equation in* $\mathbb{C}^n$*: Applications to extreme points and support points for the family* $S^0(B^n)$.

- Mini-courses in Mathematical Analysis 2015, Padova, June 22-26, 2015, **invited talk**;
G. Kohr, *Extremal problems for univalent mappings with parametric representation in higher dimensions.*

- The Eighth Congress of Romanian Mathematicians, Iaşi, June 26-July 1, 2015, contributed talk;
G. Kohr, *The generalized Loewner differential equation in higher dimensions. Applications to extremal problems for biholomorphic mappings.*

- International Conference on Complex Analysis and Related Topics. The 14th Romanian-Finnish Seminar, Bucharest, June 20-24, 2016, contributed talk;
G. Kohr, *Compact families of univalent mappings with parametric representation in* $\mathbb{C}^n$.

- The 11th AIMS Conference on Dynamical Systems, Differential Equations and Applications, July 1-July 5, 2016, Orlando, Florida, USA, **invited speaker** in the special session 94: "Infinite dimensional dynamics in analysis", organized by Cho-Ho Chu (London, UK);
G. Kohr, *Extremal problems, Loewner chains and the Loewner differential equation in* $\mathbb{C}^n$ *and complex Banach spaces.*

- The 14th International Conference on Integral Methods in Science and Engineering (IMSE 2016), 25–29 July, 2016, Padova;
G. Kohr, *Loewner theory in the study of univalent mappings in higher dimensions* (conference talk).

- 12th International Symposium on Geometric Function Theory and Applications (GFTA 2016), August 25–28, 2016, Alba Iulia (Romania); **invited speaker**;
G. Kohr, *Herglotz vector fields and univalent mappings on the unit ball in* $\mathbb{C}^n$.

- INdAM Meeting "Geometric Function Theory in Higher Dimension", Cortona (Italy), 5–9 September, 2016; **invited talk**;
G. Kohr, *Loewner theory in the study of univalent mappings in higher dimensions.*

- International Conference on Complex Dynamics: Iterations, Foliations and Evolutions, Oslo (Norway), June 19- 23, 2017; **invited talk**;
G. Kohr, *Recent results and applications of Loewner theory in higher dimensions.*

- 11th Congress of International Society for Analysis, its Applications and Computations (ISAAC 2017), Växjö (Sweden), August 14-18, 2017, **invited talk** in the session "Complex variables and potential theory";
G. Kohr, *Loewner theory in the study of biholomorphic mappings with A-parametric representation on the unit ball in* $\mathbb{C}^n$.

- XIXth International Conference on Analytic Functions and Related Topics (AF&RT'18), Rzeszów (Poland), 25-29 June, 2018;
G. Kohr, *Loewner theory and univalent mappings in* $\mathbb{C}^n$ *and complex Banach spaces* (**plenary speaker**).

- International Workshop on Conformal Dynamics and Loewner Theory, Tohoku University, Sendai (Japan), 5-7 September, 2018;
G. Kohr, *Loewner chains, extremal results and approximation properties associated with univalent mappings in* $\mathbb{C}^n$ (**invited speaker**).

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

- The Ninth Congress of Romanian Mathematicians, Galaţi (Romania), June 28-July 3, 2019, Member in the Scientific Committee of the section "Real and Complex Analysis, Potential Theory";
  G. Kohr, *Variation of Loewner chains, extreme points, support points, and approximation properties for families of biholomorphic mappings with parametric representation in* $\mathbb{C}^n$ (**invited speaker** in the section "Real and Complex Analysis, Potential Theory").

- The 12th International ISAAC Congress, University of Aveiro, Aveiro (Portugal), July 29–August 02, 2019;
  G. Kohr, *Approximation properties and related results for univalent mappings in higher dimensions* (lecture in the session "Complex Variables and Potential Theory").

- 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* $\mathbb{C}^n$.