Curriculum Vitae

Name	Ralph Chill
Date and place of birth	February 7, 1971 in Nürnberg (Germany)
Nationality	German
Marital status	Married (4 children)
Address	Hegerstr. 12 D-01187 Dresden Tel.: (0351) 30949123
Address	Institute of Analysis Faculty of Mathematics TU Dresden Zellescher Weg 12-14 01062 Dresden, Germany `ralph.chill@tu-dresden.de`

Educational background:

July 2003	Habilitation in mathematics (University of Ulm)
Dec. 1998	Ph.D. in mathematics (University of Ulm)
Dec. 1995	Diploma in mathematics (University of Tübingen)
June 1994	Licence de Mathématiques (Université de Franche-Comté, Besançon)

Employment history:

Oct. 2011 -	Professor at TU Dresden
Sep. 2005 - Sep. 2011	Professor at Paul Verlaine University of Metz
Oct. 2003 - Apr. 2004	Visiting Professor at Charles University of Prague
Jan. 2002 - Aug. 2005	Research assistant at University of Ulm
Sep. 1998 - Sep. 2000	Research assistant at University of Ulm
Jan. 1996 - Sep. 1996	Research assistant at University of Ulm

Research stays (more than one month):

Sep. 2020	University of Delhi
Feb. 2008 - Apr. 2008	Nicholas Copernicus University Torun
Mar. 2007 - May 2007	Nicholas Copernicus University Torun
Oct. 2003 - Apr. 2004	Charles University, Prague
Feb. 2002 - Mar. 2002	Nicholas Copernicus University, Torun
Oct. 2000 - Dec. 2001	Université Pierre et Marie Curie, Paris VI
Aug 2000 - Sep. 2000	St. John's College, Oxford
Sep. 1999	Mathematisches Forschungsinsitut, Oberwolfach
Mar. 1997 - Apr. 1997	St. John's College, Oxford

Studies:

Oct. 2000 - Dec. 2001	Postdoctoral position at the Laboratoire Jacques-Louis Lions, Université Paris VI, Pierre et Marie Curie, supported by a grant of DAAD
Dec. 1998	Ph.D. in mathematics (summa cum laude)
Jan. 1996 - Dec. 1998	Ph.D. student in mathematics at the University of Ulm, from Oct. 1996 to Aug. 1998 supported by a grant of the Land Baden-Württemberg
Dec. 1995	Diploma degree in mathematics
Oct. 1991 - Dec. 1995	Student in mathematics at the University of Tübingen
Oct. 1993 - June 1994	Student at the Université de Franche-Comté, Besançon Degree: Licence de Mathématiques
Oct. 1990 - Sep. 1991	Student in mathematics at the University of Hagen

Dresden, September 19, 2021

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List of publications and preprints:

Books:

[1] Wolfgang Arendt, Ralph Chill and Yuri Tomilov (eds.), *Operator semigroups meet complex analysis, harmonic analysis and mathematical physics*, Proceedings of the conference held in Herrnhut in June 2013, Operator Theory: Advances and Applications, vol. 250, Birkhäuser Verlag, Basel, 2015.

[2] Ralph Chill and Eva Fašangová, *Gradient Systems.* Lecture Notes of the 13th International Internet Seminar 2009/10, Matfyzpress, Charles University Prague, 2010.

Articles in peer-reviewed journals:

[3] Ralph Chill and Sebastian Król, *Note on the Kato property of sectorial forms*, J. Operator Theory, to appear, 14 pages.

[4] Ralph Chill, Hannes Meinlschmidt and Joachim Rehberg, *On the numerical range of second order elliptic operators with mixed boundary conditions in L^p.* J. Evolution Equations, to appear, 25 pages.

[5] Ralph Chill, David Seifert and Yuri Tomilov, *Semi-uniform stability of C_0-semigroups and energy decay of damped waves.* Philos. Trans. Roy. Soc. A 378 (2020), no. 2185, 20190614, 24 pages.

[6] Ralph Chill and Marat Pliev, *Atomic operators on vector lattices.* Mediterranean J. Math. 17, Art. no. 138 (2020), 21 pages.

[7] Ralph Chill, Alberto Fiorenza and Sebastian Król, *Interpolation of nonlinear order preserving operators on Banach lattices.* Positivity 24(3) (2020), 507–532.

[8] Zakaria Belhachmi and Ralph Chill, *The bidomain problem as a gradient system.* J. Differential Equations 268 (2020), 6598–6610.

[9] Ralph Chill and Mahamadi Warma, *Corrigendum to: Dirichlet and Neumann boundary conditions for the p-Laplace operator: What is in between?* Proc. Royal Soc. Edinburgh Sect. A 149 (2019), 1689–1691.

[10] Ralph Chill and Sebastian Mildner, *The Kurdyka-Łojasiewicz-Simon inequality and stabilisation in nonsmooth infinite-dimensional gradient systems*, Proc. Amer. Math. Soc 146 (2018), no. 10, 4307–4014.

[11] Ralph Chill and Sebastian Król, *Weighted inequalities for singular integral operators on the half-line*, Studia Math. 243 (2018), no. 2, 171–206.

[12] Ralph Chill and Tom ter Elst, *Weak and strong approximation of semigroups on Hilbert spaces*, Integral Equations Operator Theory 90 (2018), no. 1, 90:9.

[13] Ralph Chill and Sebastian Król, *Extrapolation of L^p maximal regularity for second order Cauchy problems.* Banach Center Publications 112 (2017), 33–52.
[14] Giuseppina Anatriello, Ralph Chill and Alberto Fiorenza, *Identification of fully measurable Lebesgue spaces.* J. Function Spaces 112 (2017), Art. ID 3129186, 3 Seiten.
[15] Brigitte Breckner and Ralph Chill, *The Laplace operator on the Sierpinski gasket with Robin boundary conditions*, Nonlinear Analysis, Real World Applications 38 (2017), 245–260.
[16] Ralph Chill and Sebastian Król, *Real interpolation with weighted rearrangement invariant Banach function spaces.* J. Evolution Equations 17 (2017), 173–195.
[17] Ralph Chill and David Seifert, *A quantified version of Ingham's theorem*, Bull. London Math. Soc. 48 (2016), 519–532.
[18] Charles Batty, Ralph Chill and Yuri Tomilov, *Fine scales of decay of operator semigroups.* J. Europ. Math. Soc. 18 (2016), 853–929.
[19] Ralph Chill, Daniel Hauer and James Kennedy, *Nonlinear semigroups generated by j-elliptic functionals.* J. Math. Pures Appl. 105 (2016), 415–450.
[20] Zakaria Belhachmi and Ralph Chill, *Application of the j-subgradient in a problem of electropermeabilisation*, J. Elliptic Parabolic Equations 1 (2015), 13–29.
[21] Ralph Chill and Alberto Fiorenza, *Singular integral operators with operator-valued kernels, and extrapolation of maximal regularity into rearrangement invariant Banach function spaces.* J. Evolution Equations 14 (2014), 795–828.
[22] Ralph Chill and Mahamadi Warma, *A Riesz type representation for lower semicontinuous, monotone, local functionals on $C_c(X)^+$.* Nonlinear Analysis, Theory Methods Applications 85 (2013), 17-22.
[23] Ralph Chill and Mahamadi Warma, *Dirichlet and Neumann boundary conditions for the p-Laplace operator: What is in between?* Proc. Royal Soc. Edinburgh Sect. A 142 (2012), 975-1002.
[24] Tomáš Bartá, Ralph Chill and Eva Fašangová, *Every ordinary differential equation with a strict Lyapunov function is a gradient system.* Monatsh. Mathematik 166 (2012), 57-72.
[25] Sahbi Boussandel, Ralph Chill and Eva Fašangová, *Maximal regularity, the local inverse function theorem, and local well-posedness for the curve shortening flow.* Czechoslovak Math. J. 62 (2) (2012), 335-346.
[26] Ralph Chill and Wiktor Radzki, *Stabilization of solutions of dissipative Hamiltonian systems.* J. Math. Anal. Appl. 380 (2011), 750-758.
[27] Wolfgang Arendt and Ralph Chill, *Global existence for quasilinear diffusion equations in isotropic nondivergence form.* Ann. Scuola Norm. Sup. Pisa 9 (2010), 523-539.
[28] Ralph Chill, Alain Haraux and Mohamed Ali Jendoubi, *Application of the Łojasiewicz-Simon gradient inequality to gradient-like evolution equations.* Anal. Appl. 7 (2009), 351-372.
[29] Ralph Chill, Eva Fašangová and Reiner Schätzle, *Willmore blow-ups are never compact.* Duke Math. J. 147 (2009), 345-376.

[30] Ralph Chill and Yuri Tomilov, *Operators $L^1(\mathbb{R}_+) \to X$ and the norm continuity problem for semigroups.* J. Funct. Anal. 256 (2009), 352-384.
[31] Charles Batty, Ralph Chill and Sachi Srivastava, *L^p-maximal regularity for nonautonomous second order Cauchy problems.* Studia Math. 189 (2008), 205-223.
[32] Ralph Chill, *Three variations on Newton's method.* Math. Student 77 (2008), 135-150.
[33] Ralph Chill and Sachi Srivastava, *L^p-maximal regularity for second order Cauchy problems is independent of p.* Boll. Unione Mat. Ital. Ser. IX, 1 (2008), 147-158.
[34] Alexander Borichev, Ralph Chill and Yuri Tomilov, *Uniqueness theorems for (sub-)harmonic functions with applications to operator theory.* Proc. London Math. Soc. 95 (2007), 687-708.
[35] Ralph Chill and Mohamed A. Jendoubi, *Convergence to steady states of solutions of non-autonomous heat equations in $\mathbb{R}^N$.* J. Dynam. Differential Equations 19 (2007), 777-788.
[36] Wolfgang Arendt, Ralph Chill, Simona Fornaro and César Poupaud, *L^p-maximal regularity of nonautonomous evolution equations.* J. Differential Equations 237 (2007), 1-26.
[37] Ralph Chill and Yuri Tomilov, *Stability of operator semigroups: ideas and results.* Perspectives in Operator Theory, Banach Center Publications 75 (2007), 71-109.
[38] Ralph Chill, Eva Fašangová, Giorgio Metafune and Diego Pallara, *The sector of analyticity of nonsymmetric submarkovian semigroups generated by elliptic operators.* C. R. Acad. Sci. Paris 342 (2006), 909-914.
[39] Ralph Chill and Alberto Fiorenza, *Convergence and decay rate to equilibrium of bounded solutions of quasilinear parabolic equations.* J. Differential Equations 228 (2006), 611-632.
[40] Ralph Chill, Eva Fašangová and Jan Prüss, *Convergence to steady states of solutions of the Cahn-Hilliard and Caginalp equations with dynamic boundary conditions.* Math. Nachr. 279 (2006), 1448-1462.
[41] Ralph Chill and Sachi Srivastava, *L_p-maximal regularity for second order Cauchy problems.* Math. Z. 251 (2005), 751-781.
[42] Ralph Chill, Eva Fašangová, Giorgio Metafune and Diego Pallara, *The sector of analyticity of the Ornstein-Uhlenbeck semigroup in L^p with respect to invariant measure.* J. London Math. Soc. 71 (2005), 703-722.
[43] Ralph Chill and Eva Fašangová, *Convergence to steady states of solutions of semilinear evolutionary integral equations.* Calc. Var. Partial Differential Equations 22 (2005), 321-342.
[44] Ralph Chill und Yuri Tomilov, *Analytic continuation and stability of operator semigroups.* J. Analyse Math. 93 (2004), 331-358.
[45] Ralph Chill and Alain Haraux, *An optimal estimate for the time singular limit of an abstract wave equation.* Funkcialaj Ekvac. 47 (2004), 277-290.
[46] Ralph Chill and Alain Haraux, *An optimal estimate for the difference of solutions of two abstract evolution equations.* J. Differential Equations 193 (2003), 385-395.

[47] Shangquan Bu and Ralph Chill, *A remark about the interpolation of spaces of continuous, vector-valued functions.* J. Math. Anal. Appl. 288 (2003), 246-250.
[48] Ralph Chill, *On the Lojasiewicz-Simon gradient inequality.* J. Funct. Anal. 201 (2003), 572-601.
[49] Ralph Chill and Mohamed A. Jendoubi, *Convergence to steady states in asymptotically autonomous semilinear evolution equations.* Nonlinear Analysis, Theory Methods Applications 53 (2003), 1017–1039.
[50] Ralph Chill and Yuri Tomilov, *Stability of C_0-semigroups and geometry of Banach spaces.* Math. Proc. Cambridge Phil. Soc. 135 (2003), 493-511.
[51] Ralph Chill, *Convergence of bounded solutions to gradient-like semilinear systems with radial nonlinearity.* Asymptotic Analysis 33 (2003), 93-106.
[52] Ralph Chill, *Operators $C_0(\mathbb{R};Y) \to X$ and asymptotic behaviour of abstract delay equations.* Revue Roumaine Math. Pures Appl. 48 (2003), 31-54.
[53] Shangquan Bu and Ralph Chill, *Banach spaces with the Riemann-Lebesgue or the analytic Riemann-Lebesgue property.* Bull. London Math. Soc. 34 (2002), 568-581.
[54] Charles Batty and Ralph Chill, *Approximation and asymptotic behaviour of evolution families.* Differential Integral Equations 15 (2002), 477-512.
[55] Ralph Chill and Eva Fašangová, *Equality of two spectra arising in harmonic analysis and semigroup theory.* Proc. Amer. Math. Soc. 130 (2002), 675-681.
[56] Charles Batty, Ralph Chill and Yuri Tomilov, *Strong stability of bounded evolution families and semigroups.* J. Funct. Anal. 193 (2002), 116-139.
[57] Ralph Chill and Jan Prüss, *Asymptotic behaviour of evolutionary integral equations.* Integral Eq. Operator Theory 39 (2001), 193-213.
[58] Charles Batty, Ralph Chill and Jan van Neerven, *Asymptotic behaviour of C_0-semigroups with bounded local resolvents.* Math. Nachr. 272 (2000), 66-83.
[59] Charles Batty and Ralph Chill, *Bounded convolutions and solutions of inhomogeneous Cauchy problems.* Forum Math. 11 (1999), 253-277.
[60] Ralph Chill, *Tauberian theorems for vector-valued Fourier and Laplace transforms.* Studia Math. 128 (1998), 55-69.

Articles in conference proceedings:

[61] Charles Batty, Ralph Chill and Sachi Srivastava, *Maximal regularity in interpolation spaces for second order Cauchy problems.* In "Operator semigroups meet complex analysis, harmonic analysis and mathematical physics", Proceedings of the conference held in Herrnhut in June 2013, Operator Theory: Advances and Applications, Birkhäuser Verlag, vol. 250, Basel, 2015, pp. 49-66.
[62] Ralph Chill, Valentin Keyantuo and Mahamadi Warma, *Generation of cosine functions on $L^p(0,1)$ by elliptic operators with Robin boundary conditions.* Functional Analysis and Evolution Equations. The Günter Lumer Volume. (H. Amann, W. Arendt, M. Hieber, F. Neubrander, S. Nicaise, J. von Below, eds.), Birkhäuser Verlag, 2008, pp. 113–130.

[63] Ralph Chill, *The Lojasiewicz-Simon gradient inequality on Hilbert spaces.* Proceedings of the 5^{th} European-Maghrebian Workshop on Semigroup Theory, Evolution Equations, and Applications (M. A. Jendoubi, ed.), 2006, 25–36.
[64] Ralph Chill, *Stability results for individual solutions of the abstract Cauchy problem via Tauberian theorems.* Ulmer Seminare über Funktionalanalysis und Differentialgleichungen 1 (1996), pp. 122–133.

Preprints:

[65] Ralph Chill, Timo Reis und Tatjana Stykel, *Analysis of a quasilinear coupled magneto-quasistatic model. Part I: Solvability and regularity of solutions*, Submitted, 2021.
[66] Ralph Chill, Lassi Paunonen, David Seifert, Reinhard Stahn und Yuri Tomilov, *Nonuniform stability of damped contraction semigroups.* Submitted, 2019.
[67] Ralph Chill, Eva Fašangová, Giorgio Metafune and Diego Pallara, *The domain of analyticity of the Ornstein-Uhlenbeck semigroup.* In preparation, 2021.
[68] Ralph Chill and Daniel Hauer, *Wellposedness of degenerate and singular diffusion equations on noncylindrical domains.* In preparation, 2021.

Memoirs:

[69] Ralph Chill, *Asymptotic behaviour of linear and nonlinear evolution equations.* Habilitation thesis, University of Ulm, 2002.
[70] Ralph Chill, *Fourier transforms and asymptotics of evolution equations.* Ph.D. thesis, University of Ulm, 1998.
[71] Ralph Chill, *Taubersche Sätze und Asymptotik des abstrakten Cauchy-Problems.* Diploma thesis, University of Tübingen, 1995.

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Teaching experience:

I. Lecture courses:

Analysis (first and second year), Logic and set theory, Ordinary differential Equations, Measure and integration theory, Numerical analysis, Functional analysis (linear, nonlinear, spectral theory, Banach algebras, C_0-semigroups), Complex analysis, Dynamical systems, Partial differential equations, Harmonic analysis.

Several advanced lecture courses on Partial differential equations, Gradient systems, Nonlinear Analysis.

II. Seminars, exercises:

Seminar in analysis 2$^{\text{nd}}$ year (in Prague), Analysis 1$^{\text{st}}$ year (in Ulm), Mathematics for engineers (in Ulm), Functional analysis (in Tübingen and Ulm), Partial differential equations (in Ulm), Seminar on semigroups (in Ulm), Seminar on Navier-Stokes equations (in Ulm), Seminar on evolution equations (in Metz), Seminar on harmonic analysis (in Dresden), Seminar on partial differential equations (in Dresden).

III. Ph.D. students:

1. Sahbi Boussandel, *Quelques méthodes de résolution de quelques équations algébriques et d'évolution en dimension finie et infinie.* Co-tutelle between the Paul-Verlaine-University Metz and the Faculté des Sciences de Bizerte (Tunesien), December 2010. Co-advisor: Prof Mohamed Ali Jendoubi, Faculté des Sciences de Bizerte. Publications:
   [1] S. Boussandel, *Global existence and maximal regularity of solutions of gradient systems*, Journal of Differential Equations 250 (2011), 929–948.
   [2] S. Boussandel, R. Chill, E. Fašangová, *Maximal regularity, the local inverse function theorem, and local well-posedness for the curve shortening flow*, Czechoslovak Math. J. 62 (2012), 335–346.
   [3] S. Boussandel, *Existence and uniqueness of periodic solutions for gradient systems in finite dimensional spaces*, Acta Math. Sci. Ser. B 36 (2016), 233–243.

2. Hassan Yassine. *Existence, régularité et comportement asymptotique pour des problèmes de fluide-structure.* Université de Lorraine, Metz, June 2012. Publications:
   [1] H. Yassine, *Asymptotic behavior and decay rate estimates for a class of semilinear evolution equations*, Nonlinear Analysis 74 (2011), 2309–2326.
   [2] H. Yassine, *Existence and asymptotic behavior of solutions to semilinear wave equations with nonlinear damping and dynamical boundary condition*, J. Dynamics Differential Equations 24 (2012), 645–661.
   [3] H. Yassine, *Well-posedness and asymptotic behavior of a nonautonomous, semilinear hyperbolic-parabolic equation with dynamical boundary condition of memory type*, J. Integral Equations Appl. 25 (2013), 517–555.

3. Daniel Hauer. *Gradient systems: maximal regularity and asymptotic behaviour*, Co-tutelle between the Université de Lorraine, Metz, and the University of Ulm, December 2012. Co-advisor: Prof Wolfgang Arendt, University of Ulm. Publications:
   [1] D. Hauer, A. Rhandi, *New weighted Hardy inequalities with application to nonexistence of global solutions*, Archiv Math. 100 (2013), 273–287.
   [2] D. Hauer, *Convergence of bounded solutions of nonlinear parabolic problems on a bounded interval: the singular case*, Nonlinear Differential Equations and Applications NoDEA 20 (2013), 1171–1190.
   [3] J. Goldstein, D. Hauer, A. Rhandi, *Existence and nonexistence of positive solutions of p-Kolmogorov equations perturbed by a Hardy potential.* Nonlinear Anal. 131 (2016), 121–154.

4. Maria Wehowski. *Well-posedness of degenerate nonlinear Cauchy problems in Hilbert spaces.* TU Dresden, June 2015. Publications:
   [1] R. Picard, S. Trostorff, M. Waurick, M. Wehowski, *On non-autonomous evolutionary problems*, J. Evolution Equations 13 (2013), 751–776.
   [2] S. Trostorff, M. Wehowski, *Well-posedness of non-autonomous evolutionary inclusions*, Nonlinear Analysis 101 (2014), 47–65.

5. Helena Malinowski. *Pre-Riesz spaces: structures and operators.* TU Dresden, March 2017. Co-advisor: Anke Kalauch. Publications:
   [1] H. Malinowski, M. R. Weber, *On finite elements in f-algebras and in product algebras.* Positivity 17 (2013), 819–840.
   [2] H. Malinowski, *Order closed ideals in pre-Riesz spaces and their relationship to bands*, Positivity 22 (2018), 1039–1063.
   [3] A. Kalauch, H. Malinowski, *Pervasive and weakly pervasive pre-Riesz spaces*, Indag. Math. 30 (2019), 375–385.

6. Reinhard Stahn. *Quantified Tauberian theorems and applications to decay of waves.* TU Dresden, December 2017. Publications:
   [1] R. Stahn, *Existence of solutions for semilinear elliptic boundary value problems on arbitrary open sets*, Vestnik St. Petersburg Univ. Math. 48 (2015), 251–261.
   [2] R. Stahn, *Optimal decay rate for the wave equation on a square with constant damping on a strip*, Z. Angew. Math. Phys. 68 (2017), no. 2, Art. 36, 10 pp.
   [3] R. Stahn, *On the decay rate for the wave equation with viscoelastic boundary damping*, J. Differential Equations 265 (2018), 2793–2824.

7. Lars Perlich. *Holomorphic semiflows and Poincaré-Steklov semigroups.* TU Dresden, September 2019. Publications:
   [1] L. Perlich, *Dirichlet-to-Robin operators via composition semigroups*, Complex Analysis Operator Theory 13 (2018), 819–837.
   [2] L. Perlich, *Semiflows, composition semigroups, and the approximation of Dirichlet-to-Neumann semigroups*, submitted (2020).

8. Sebastian Mildner. *Lyapunov couples for nonlinear evolution equations governed by quasi-accretive operators.* TU Dresden, September 2020. Publications:
   [1] F. Gregorio, S. Mildner, *Fourth-order Schrödinger type operator with singular potentials*, Arch. Math. (Basel) 107 (2016), 285–294.
   [2] R. Chill, S. Mildner, *The Kurdyka-Łojasiewicz-Simon inequality and stabilisation in nonsmooth infinite-dimensional gradient systems*, Proc. Amer. Math. Soc. 146 (2018), 4307–4314.

9. Burkhard Claus. *Nonlinear Dirichlet forms.* TU Dresden, July 2021. Publications.
   [1] B. Claus und M. Warma, *Realization of the fractional Laplacian with nonlocal exterior conditions via form methods*, J. Evolution Equations 20 (2020), 1597–1631.
   [2] B. Claus, *Energy spaces, Dirichlet forms and capacities in a nonlinear setting*, Potential Analysis, to appear.

10. Sahiba Arora. *Eventually positive semigroups.* TU Dresden, in preparation. Publications:
    [1] S. Arora, J. Glück, *Spectrum and convergence of eventually positive operator semigroups*, Semigroup Forum, to appear.
    [2] S. Arora, *Locally eventually positive operator semigroups*, J. Operator Theory, to appear.
    [3] S. Arora, J. Glück, *An operator theoretic approach to uniform (anti-)maximum principles*, J. Differential Equations, to appear.

11. Markus Hartlapp. *Quantitative Tauberian theorems for general limiting processes.* TU Dresden, in preparation. Publications:
    [1] M. Hartlapp, *A quantified Tauberian theorem for the Laplace-Stieltjes transform)*, Arch. Math. (2018).

12. Johann Beurich. *Approximation and regularity of gradient systems.* TU Dresden, in preparation.

13. Praveen Sharma. *Short time regularity of nonlinear semigroups.* University of Delhi. Co-supervisor: Prof Sachi Srivastava. In preparation.

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Organisation of conferences and workshops:

- Meeting Dresden–Warsaw–Prague, Institute of Mathematics, Czech Academy of Sciences, Prague, September 2019.
- Conference on *Parabolic Evolution Equations, Harmonic Analysis, and Spectral Theory*, Bad Herrenalb, May 2019.
- Workshop on *Banach spaces, positive operators and applications*, Dresden, March 2019.
- Colloquium on the occasion of the *75th birthday of Prof. Dr. Jürgen Voigt*, Dresden, February 2019.
- Conference on *Operator semigroups in analysis: modern developments*, Bedlewo, April 2017.
- Minisymposium in *Operator semigroups: theory and applications*, European Congress of Mathematics, Berlin, July 2016.
- Symposium *Operator semigroups meet complex analysis, harmonic analysis and mathematical physics*, Herrnhut, Juni 2013.
- Session in Functional Analysis, Jahrestagung der Deutschen Mathematiker Vereinigung, Saarbrücken, September 2012.
- Minisymposium in Operator Theory, European Congress of Mathematics, Krakow, July 2012.
- Workshop *Asymptotics of Operator Semigroups*, CIRM, Luminy, April 2011.
- Journées de Metz *Qualitative and quantitative aspects of evolution and applications*, Metz, March 2011.
- Annual meeting of the GDR (Groupement de recherche) *Analyse fonctionnelle et harmonique, et applications*, Metz, October 2010.
- Final Summer School of the 13th International Internet Seminar on Gradient Systems, Kácov, June 2010.
- Colloquium on the occasion of the 60th birthday of Wolfgang Arendt, Ulm, April 2010.
- First Meeting on Asymptotics of Operator Semigroups, Oxford, September 2009.
- $T = \infty$*, Evolution Equations and Dynamical Systems* - Conference on the occasion of the 60th birthday of Alain Haraux, Hammamet, March 2009.
- Session in Functional Analysis, 1st Spanish-French Congress of Mathematics, Saragossa, July 2007.

Talks (last four years):

- *The Kato property of sectorial forms.* Research Seminar Analysis, Fernuniversität Hagen, June 2021 (virtual).
- *Degenerate gradient systems: the bidomain problem and Dirichlet-to-Neumann operators.* Colloquium, AIMS-Cameroon Research Center, Limbé, January 2021 (virtual).
- *Semi-uniform stability of C_0-semigroups and energy decay of damped waves.* C_0-semigroups and Beyond, Conference in Honor of Rainer Nagel, Tübingen, November 2020 (virtual).
- *Degenerate gradient systems: the bidomain problem and Dirichlet-to-Neumann operators.* PDE Seminar, Mathematical Institute, Czech Academy of Sciences, Prague, October 2020 (virtual).
- *Systèmes gradient euclidiens et le modèle du bi-domaine.* Seminaire du Laboratoire EDP, Faculty of Sciences of the University of Tunis, Tunis, January 2020.
- *Weak and strong approximation of semigroups on Hilbert spaces.* Selected Topics of Simons Semesters, Institute of Mathematics of the Polish Academy of Sciences, Warsaw, December 2019.
- *Approximation and regularity of gradient systems.* Minicourse at the Winter School on Gradient System, University of Ulm, Ulm, November 2019.
- *Systèmes gradient euclidiens.* Seminaire d'Analyse Appliquée, Aix-Marseille Université, November 2019.
- *The bidomain problem as a gradient system.* Evolution Equations: Applied and Abstract Perspectives — in honour of Matthias Hieber's 60th birthday, CIRM Luminy, October 2019.
- *Euclidean gradient systems.* Meeting Dresden-Prague-Wroclaw, Mathematical Institute of the Czech Academy of Sciences, Prague, September 2019.
- *Nichtlineare Dirichletformen.* Oberseminar Funktionalanalysis, Christian-Albrechts-Universität Kiel, Kiel, June 2019.
- *Euclidean gradient systems.* Mathematisches Kolloquium, Christian-Albrechts-Universität Kiel, Kiel, June 2019.
- *Euclidean gradient systems.* Lothar-Collatz-Kolloquium, Universität Hamburg, Hamburg, June 2019.
- *Eine positive Welt (A positive world).* Colloquium on the occasion of the retirement of Professor Wolfgang Arendt, Universität Ulm, Ulm, April 2018.

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Projects:

- Grant of the DFG for the international cooperation *Order preserving operators in problems of optimal control and the theory of partial differential equations* with the Russian Academy of Sciences in Vladikavkaz (2018).
- Grant of the DFG for the international cooperation *Positivity in Banach spaces* with the Russian Academy of Sciences in Vladikavkaz (2014).
- Grant of the Volkswagen Foundation for the organisation of the symposium *Operator semigroups meet complex analysis, harmonic analysis and mathematical physics* in Herrnhut (2013).
- German-French University, Saarbrücken, for the organisation of the final summer school of the 13th International Internet Seminar on Gradient Systems (2010).
- French-Tunisian Cooperation CNRS - DGRSRT, *Dynamical Systems and Evolution Equations* (2008 – 2010).
- Postdoc grant of the DAAD for a research stay at the Laboratoire Jacques-Louis Lions, Université Pierre et Marie Curie, Paris VI (2000 – 2001).

Editorial work:

- Editor of *Archiv für Mathematik (Basel),* since 2008 (Editor-in-Chief since 2016).
- Editor of *Journal of Evolution Equations,* since 2020.
- Editor of *Zeitschrift für Analysis und ihre Anwendungen,* since 2015.
- Editor of *Evolution Equations and Control Theory,* 2011–2019.
- Editor of *Discrete and Continuous Dynamical Systems S,* 2011–2019.
- Editor of *Acta Universitatis Carolinae. Mathematica et Physica,* Prague, 2009–2013.

Peer reviewing activity (research articles):

I am reviewer for Mathematical Reviews and several journals including Analysis PDE, Journal de Mathématiques Pures et Appliquées, Journal für die reine und angewandte Mathematik (Crelle), Journal of Evolution Equations, Journal of Differential Equations, Journal of Functional Analysis, Journal of Operator Theory, Mathematische Annalen, Transactions of the American Mathematical Society.

Peer-reviewing activity (research projects):

Deutsche Forschungsgemeinschaft (Germany), FONDECYT and CONICYT (Chile, 2000, 2014), National Science Centre / Narodowe Centrum Nauki (Poland, 2012, 2015, 2018, 2019, 2020, 2021), UEFISCDI (Romania, 2012, 2015), APVV (Slovakia, 2013).