

## Academic curriculum vitae of Miroslav Engliš

Name, surname, titles: Prof. RNDr. Miroslav Engliš, DrSc.  
Born: 30.5.1964 in Prague, Czech Republic  
Marital status: married  
Nationality: Czech  
Current affiliations: Mathematics Institute, Silesian University, Na Rybníčku 1, 74601 Opava & Mathematics Institute, Academy of Sciences, Žitná 25, 11567 Prague 1

### **1. Academic history:**

1982–1987 RNDr. (“Doctor of Natural Sciences”), Faculty of Mathematics and Physics, Charles University, Prague  
1987–1990 CSc. (“Candidate of Science” – equivalent of Ph.D.), Mathematics Institute of the Czechoslovak Academy of Sciences, Prague  
Jan–Jun 1992 Graduate Teaching Assistant, Kansas State University, USA  
1991– research assistant/research scientist/leading research scientist, Mathematics Institute, Academy of Sciences, Prague  
2001 DrSc. (“Doctor of Sciences”), Academy of Sciences of the Czech Republic, Prague  
2004 Docent (habilitation), Mathematics Institute, Silesian University, Opava  
2005– director/deputy director, Mathematics Institute, Silesian University, Opava  
2006 Professor, Mathematics Institute, Silesian University, Opava

Main areas of scientific activity: analysis on symmetric spaces, several complex variables, complex geometry, functional analysis, mathematical physics.

### **2. Academic service, committee/council memberships:**

2011– prorektor pro vědu a zahraniční styky, Slezská univerzita v Opavě  
2005– člen Rady doktorského studijního oboru Geometrie a topologie, globální analýza a obecné struktury, MFF UK, Praha  
2005– člen Oborové rady doktorského studijního oboru Geometrie, topologie a globální analýza, PřF MU Brno  
2005– člen Oborové rady doktorského studijního oboru Matematická analýza, PřF MU Brno  
2009– člen Vědecké rady Akademie věd ČR  
2012–2016 člen Rady Matematického ústavu AV ČR, v.v.i.  
2014– člen Národního komitétu pro matematiku při AV ČR  
2014– člen Komise pro etiku vědecké práce AV ČR

### **3. Awards:**

- Prize of the Learned Society of the Czech Republic for Young Scientists, Prague 1997
- ISAAC Award, International Society for Analysis, its Applications and Computation (ISAAC), Berlin 2001
- Otto Wichterle Prize, Academy of Sciences of the Czech Republic, Prague 2002
- Prize of the Learned Society of the Czech Republic, Prague 2007
- 2009 elected member of the Learned Society of the Czech Republic

### **4. Talks at international conferences and academic institutions abroad:**

See the separate list.

**5. Fellowships, visiting positions etc.:**

- Cambridge University, Cambridge, England, British Council/Cambridge University Fellowship, 1993
- Erwin Schrödinger Institut für Mathematische Physik, Wien, 1999, 2000, 2005, 2006, 2009, 2012
- Universität Mannheim, Deutsche Forschungsgemeinschaft (DFG), 2001
- numerous shorter scientific visits (up to 1 month): Banach Center (Warszawa, 1992), Uppsala University (Sweden, 1993), Lund University (Sweden, 1992, 1993, 1995, 1996, 1997, 1998, 2002), Technical University Karlstad (Sweden, 1998, 1999), University of Wisconsin (1997), Washington University, St. Louis (1997), Mathematical Institute PAN (Krakow, 1998), Haifa University (Israel, 2001), Concordia University (Canada, 2002, 2003, 2005, 2006, 2008, 2010, 2012, 2014), Chalmers Tekniska Högskola/Göteborg University (Sweden, 2002, 2003, 2004, 2006, 2008, 2009, 2010, 2013, 2015, 2016, 2017, 2018), Lorentz Center, Leiden (Netherlands, 2002), Pohang Institute for Science and Technology (South Korea, 2003), Universidad de Chile (2004, 2006), University of Helsinki (2004), Peking University (2006), Nankai Mathematical Institute (China, 2006), Université de Provence, Marseille (2010, 2011), Université Aix de Marseille (2012, 2013, 2014, 2015, 2016, 2018).
- ESI Senior Research Fellow, Erwin Schrödinger Institut für Mathematische Physik, Wien, January–April 2007.
- Visiting Professor, Université de Provence, Marseille, May 2009 (1 month).

**6. Citations of publications of M. Engliš:**

Altogether over 740 citations according to WoS.

**7. Grants:**

See the separate list.

**8. Editorial activities:**

- Czechoslovak Mathematical Journal (currently Editor-in-Chief), since 2002
- Journal of Function Spaces and Applications, member of Editorial Board, Hindawi, 2002–2017 (resigned when the journal came under Hindawi)

## Publications of Miroslav Engliš

- [1] M. Engliš: A note on Toeplitz operators on Bergman spaces, *Comm. Math. Univ. Carolinae* 29 (1988) 217 – 219.
- [2] M. Engliš: Some density theorems for Toeplitz operators on Bergman spaces, *Czech. Math. Journal* 40 (1990), 491–502.
- [3] M. Engliš: A class of weighted composition operators on  $H^2$ , *Čas. Pěst. Mat.* 115 (1990), 405–423.
- [4] M. Engliš: Density of algebras generated by Toeplitz operators on Bergman spaces, *Arkiv för Matematik* 30 (1992), 227–243.
- [5] M. Engliš: Toeplitz operators on Cartan domains essentially commute with a bilateral shift, *Proceedings Amer. Math. Soc.* 117 (1993), 365–368.
- [6] M. Engliš: Functions invariant under the Berezin transform, *J. Funct. Anal.* 121 (1994), 233–254.
- [7] M. Engliš: Toeplitz operators and the Berezin transform on  $H^2$ , *Linear Alg. Appl.* 223/224 (1995), 171–204.
- [8] M. Engliš: Berezin transform and the Laplace-Beltrami operator, *Algebra i Analiz* 7 (1995), 176–195; translation in *St. Petersburg Math. J.* 7 (1996), 633–647.
- [9] M. Engliš: Asymptotics of reproducing kernels on a plane domain, *Proc. Amer. Math. Soc.* 123 (1995), 3157–3160.
- [10] M. Engliš, J. Peetre: On the correspondence principle for the quantized annulus, *Math. Scand.* 78 (1996), 183–206.
- [11] M. Engliš: Asymptotics of the Berezin transform and quantization on planar domains, *Duke Math. J.* 79 (1995), 57–76.
- [12] M. Engliš: Berezin quantization and reproducing kernels on complex domains, *Trans. Amer. Math. Soc.* 348 (1996), 411–479.
- [13] M. Engliš, J. Peetre: A Green's function for the annulus, *Annali di Math. Pura Appl. (IV)* 171 (1996), 313–377.
- [14] M. Engliš, J. Peetre: Covariant differential operators and Green functions, *Ann. Polon. Math.* LXVI (1997), 77–103.
- [15] M. Engliš, J. Peetre: Covariant Cauchy-Riemann operators and higher Laplacians on Kähler manifolds, *J. reine angew. Math.* 478 (1996), 17–56.
- [16] M. Engliš, J. Peetre: Green's functions for powers of the invariant Laplacian, *Canadian J. Math.* 50 (1998), 40–73.
- [17] M. Engliš: A Loewner-type lemma for weighted biharmonic operators, *Pacific J. Math.* 179 (1997), 343–353.
- [18] M. Engliš: Asymptotic behaviour of reproducing kernels of weighted Bergman spaces, *Trans. Amer. Math. Soc.* 349 (1997), 3717–3735.
- [19] M. Engliš: Invariant operators and the Berezin transform on Cartan domains, *Math. Nachrichten* 195 (1998), 61–75.
- [20] M. Engliš: Weighted biharmonic Green functions for rational weights, *Glasgow Math. J.* 41 (1999), 239–269.
- [21] M. Engliš: Asymptotic behaviour of reproducing kernels, Berezin quantization and mean-value theorems. In: S. Saitoh, D. Alpay, J.A. Ball, T. Ohsawa (editors), *Reproducing kernels and their applications*, pp. 53–64. International Society for Analysis, Applications and Computation, Vol. 3. Kluwer Acad. Publ., Dordrecht, 1999.
- [22] M. Engliš: A mean value theorem on bounded symmetric domains, *Proc. Amer. Math. Soc.* 127 (1999), 3259–3268.
- [23] M. Engliš: Compact Toeplitz operators via the Berezin transform on bounded symmetric domains, *Integral Eq. Oper. Theory* 33 (1999), 426–455; Erratum, *ibid.* 34 (1999), 500–501.
- [24] M. Engliš: A Forelli-Rudin construction and asymptotics of weighted Bergman kernels, *J. Funct. Anal.* 177 (2000), 257–281.
- [25] M. Engliš: The asymptotics of a Laplace integral on a Kähler manifold, *J. reine angew. Math.* 528 (2000), 1–39.
- [26] M. Engliš: Zeroes of the Bergman kernel of Hartogs domains, *Comm. Math. Univ. Carolinae* 41 (2000), 199–202.
- [27] M. Engliš, J. Peetre: Green functions and eigenfunction expansions for the square of the Laplace-Beltrami operator on plane domains, *Annali di Matematica Pura Appl.* 181 (2002), 463–500.
- [28] C. Ambrozie, M. Engliš, V. Müller: Operator tuples and analytic models over general domains in  $C^n$ , *J. Oper. Theory* 47 (2002), 287–302.

- [29] M. Engliš, S.C. Hille, J. Peetre, H. Rosengren, G. Zhang: A new kind of Hankel-Toeplitz type operator, *Arab J. Math. Sci.* 6 (2000), 49–80.
- [30] J. Arazy, M. Engliš: Iterates and the boundary behaviour of the Berezin transform, *Ann. Inst. Fourier (Grenoble)* 51 (2001), 1101–1133.
- [31] M. Engliš: Pseudolocal estimates for  $\bar{\partial}$  on general pseudoconvex domains, *Indiana Univ. Math. J.* 50 (2001), 1593–1607.
- [32] M. Engliš: Weighted Bergman kernels and quantization, *Comm. Math. Phys.* 227 (2002), 211–241.
- [33] M. Engliš: Green functions for powers of the Laplace-Beltrami operator. In: M. Cwikel, M. Engliš, A. Kufner, L.-E. Persson, G. Sparr (editors), *Function spaces, interpolation theory and related topics* (Lund, 2000), pp. 285–309. Walter de Gruyter, Berlin-New York, 2002.
- [34] J. Arazy, M. Engliš: Analytic models for commuting operator tuples on bounded symmetric domains, *Trans. Amer. Math. Soc.* 355 (2003), 837–864.
- [35] M. Engliš: A no-go theorem for nonlinear canonical quantization, *Comm. Theor. Phys.* 37 (2002), 287–288.
- [36] S.T. Ali, M. Engliš: Quantization methods: a guide for physicists and analysts, *Rev. Math. Phys.* 17 (2005), 391–490.
- [37] M. Engliš, D. Lukkassen, J. Peetre, L.-E. Persson: On the formula of Jacques-Louis Lions for reproducing kernels of harmonic and other functions, *J. reine angew. Math.* 570 (2004), 89–129.
- [38] M. Engliš: A review of (Berezin and other) quantization methods. In: J.-P. Gazeau, R. Kerner, J.-P. Antoine, S. Métens, J.-Y. Thibon (editors), *GROUP 24: Physical and Mathematical Aspects of Symmetries* (Proceedings of the 24th International Colloquium on Group Theoretical Methods in Physics, Paris 2002), pp. 73–80. Conference Series 173, IOP Publishing, Bristol-Philadelphia, 2003.
- [39] M. Engliš: Some problems in operator theory on bounded symmetric domains. In: *Representations of Lie groups, harmonic analysis on homogeneous spaces and quantization* (G. van Dijk and V.F. Molchanov, eds.) (Leiden, 2002), *Acta Appl. Math.* 81 (2004), 51–71.
- [40] M. Engliš, T. Hänninen, J. Taskinen: Minimal  $L^\infty$ -type spaces on strictly pseudoconvex domains on which the Bergman projection is continuous, *Houst. J. Math.* 32 (2006), 253–275.
- [41] M. Engliš: Berezin-Toeplitz quantization and invariant symbolic calculi, *Lett. Math. Phys.* 65 (2003), 59–74.
- [42] M. Engliš: Berezin-Toeplitz quantization on the Schwartz space of bounded symmetric domains, *J. Lie Theory* 15 (2005), 27–50.
- [43] M. Engliš: Operator models and Arveson's curvature invariant. In: K. Jarosz and A. Soltysiak (editors), *Topological Algebras, their Applications, and Related Topics* (Bedlewo, 2003), Banach Center Publications 67, PAN, Warszawa 2005, pp. 171–183.
- [44] M. Engliš: Some variations on the Berezin quantization method. In: J. Govaerts, M.N. Hounkonnou, A.M. Msezane (editors), *Proceedings of the Third Workshop on Contemporary Problems in Mathematical Physics* (CoProMaPh3, Cotonou, Benin, November 2003), World Scientific, Singapore, 2004, pp. 450–464.
- [45] M. Engliš, G. Zhang: On the Faraut-Koranyi hypergeometric functions in rank two. *Ann. Inst. Fourier (Grenoble)* 54 (2004), 1855–1875.
- [46] S.T. Ali, M. Engliš, J.-P. Gazeau: Vector Coherent States from Plancherel's Theorem, Clifford Algebras and Matrix Domains, *J. Phys. A: Math. Gen.* 37 (2004), 6067–6089.
- [47] M. Engliš: A characterization of symmetric domains, *J. Math. Kyoto Univ.* 46 (2006), 123–146.
- [48] J. Bonet, M. Engliš, J. Taskinen: Weighted  $L^\infty$ -estimates for Bergman projections. *Studia Math.* 171 (2005), 67–92.
- [49] M. Engliš, G. Zhang: On a generalized Forelli-Rudin construction, *Complex Variables Ellipt. Eqns.* 51 (2006), 277–294.
- [50] M. Engliš, G. Zhang: On the derivatives of the Berezin transform. *Proc. Amer. Math. Soc.* 134 (2006), 2285–2294.
- [51] M. Engliš:  $Q_p$ -spaces: generalizations to bounded symmetric domains, in: *Complex Analysis and its Applications* (Y. Wang, S. Wu, H. Wulan and L. Yang, editors), proceedings of the 13th ICFIDCAA (Shantou, 2005), World Scientific, Singapore, 2006, pp. 53–71.
- [52] M. Engliš: Berezin and Berezin-Toeplitz quantizations for general function spaces. *Rev. Mat. Complut.* 19 (2006), 385–430.
- [53] S.-T. Ali, M. Engliš: Berezin-Toeplitz quantization over matrix domains, in: *Contributions in Mathematical Physics. A tribute to Gerard G. Emch* (S. Twareque Ali and Kalyan B. Sinha, editors), pp. 1–36, Hindustan Book Agency, New Delhi, 2007 (xviii + 217 pages).
- [54] M. Engliš: Toeplitz operators and group representations, *J. Fourier Anal. Appl.* 13 (2007), 243–265.

- [55] M. Engliš: Berezin transforms on pluriharmonic Bergman spaces, *Trans. Amer. Math. Soc.* 361 (2009), 1173–1188.
- [56] M. Engliš: Weighted Bergman kernels and balanced metrics, *RIMS Kokyuroku* 1487 (2006), 40–54.
- [57] M. Engliš, J. Taskinen: Deformation quantization and Borel's theorem in locally convex spaces, *Studia Math.* 180 (2007), 77–93.
- [58] M. Engliš: Toeplitz operators and localization operators, *Trans. Amer. Math. Soc.* 361 (2009), 1039–1052.
- [59] M. Engliš: Toeplitz operators and weighted Bergman kernels, *J. Funct. Anal.* 255 (2008), 1419–1457.
- [60] S. Twareque Ali, M. Engliš: A matrix-valued Berezin-Toeplitz quantization, *J. Math. Phys.* 48 (2007), 053504, 14 pp.
- [61] J. Arazy, M. Engliš:  $Q_p$ -spaces on bounded symmetric domains, *J. Funct. Spaces Appl.* 6 (2008), 205–240.
- [62] J. Arazy, M. Engliš, W. Kaup: Holomorphic retractions and boundary Berezin transforms, *Ann. Inst. Fourier* 59 (2009), 641–657.
- [63] M. Engliš: Singular Berezin transforms, *Complex Anal. Oper. Theory* 1 (2007), 533–548.
- [64] M. Engliš: Boundary behaviour of the Bergman invariant and related quantities, *Monatsh. Math.* 154 (2008), 19–37.
- [65] M. Engliš, K. Guo, G. Zhang: Toeplitz and Hankel operators and Dixmier traces on the unit ball of  $\mathbf{C}^n$ , *Proc. Amer. Math. Soc.* 137 (2009), 3669–3678.
- [66] M. Engliš, G. Zhang: Ramadhanov conjecture and line bundles over compact Hermitian symmetric spaces, *Math. Z.* 264 (2010), 901–912.
- [67] M. Engliš, R. Otáhalová: Covariant derivatives of the Berezin transform, *Trans. Amer. Math. Soc.* 363 (2011), 5111–5129.
- [68] M. Engliš: Weighted Bergman kernels for logarithmic weights, *Pure Appl. Math. Quarterly* (Kohn special issue) 6 (2010), 781–813.
- [69] M. Engliš, R. Rochberg: The Dixmier trace of Hankel operators on the Bergman space, *J. Funct. Anal.* 257 (2009), 1445–1479.
- [70] M. Engliš, H. Upmeier: Toeplitz quantization and asymptotic expansions for real bounded symmetric domains, *Math. Z.* 268 (2011), 931–967.
- [71] M. Engliš, H. Upmeier: Toeplitz quantization and asymptotic expansions: geometric construction, *SIGMA* 5 (2009), 021, 30 pages.
- [72] M. Engliš, G. Zhang: Hankel operators and the Dixmier trace on strictly pseudoconvex domains, *Docum. Math.* 15 (2010), 601–622.
- [73] M. Engliš: Berezin transform on the harmonic Fock space, *J. Math. Anal. Appl.* 367 (2010), 75–97.
- [74] M. Engliš: Analytic continuation of weighted Bergman kernels, *J. Math. Pures Appl.* 94 (2010), 622–650.
- [75] M. Engliš, H. Upmeier: Toeplitz quantization and asymptotic expansions: Peter-Weyl decomposition, *Integ. Eqs. Oper. Theory* 68 (2010), 427–449.
- [76] M. Engliš, H. Upmeier: Real Berezin Transform and Asymptotic Expansion for Symmetric Spaces of Compact and Non-compact Type, in: *Recent Progress in Operator Theory and Its Applications* (J.A. Ball, R.E. Curto, S.M. Grudsky, J.W. Helton, R. Quiroga-Barranco, N.L. Vasilevski, editors), pp. 97–114, *Operator Theory: Advances and Applications* vol. 220, Birkhäuser, Basel - Dordrecht - Heidelberg - Boston - New York, 2010.
- [77] H. Bommier-Hato, M. Engliš, E.-H. Youssfi: Bergman-type projections on generalized Fock spaces, *J. Math. Anal. Appl.* 389 (2012), 1086–1104.
- [78] S.-T. Ali, M. Engliš: Wigner transform and pseudodifferential operators on symmetric spaces of non-compact type, *J. Phys. A: Math. Theor.* 44 (2011), 215206 (17 pp).
- [79] H. Bommier-Hato, M. Engliš, E.-H. Youssfi: Dixmier trace and the Fock space, *Bull. Sci. Math.* 138 (2014), 199–224.
- [80] M. Engliš: Boundary singularity of Poisson and harmonic Bergman kernels, *J. Math. Anal. Appl.* 429 (2015), 233–272.
- [81] M. Engliš: An excursion into Berezin-Toeplitz quantization and related topics, in: *Quantization, PDEs, and Geometry* (D. Bahns, W. Bauer, I. Witt, editors), pp. 69–115, *Operator Theory Advances and Applications* 251, Birkhäuser, 2016.
- [82] M. Engliš, H. Upmeier: Asymptotic expansions for Toeplitz operators on symmetric spaces of general type, *Trans. Amer. Math. Soc.* 367 (2015), 423–476.
- [83] H. Bommier-Hato, M. Engliš, E.-H. Youssfi: Dixmier classes on generalized Segal-Bargmann-Fock spaces, *J. Funct. Anal.* 266 (2014), 2096–2124.
- [84] H. Bommier-Hato, M. Engliš, E.-H. Youssfi: Analytic continuation of Toeplitz operators, *J. Geom. Anal.* 25 (2015), 2323–2359.

- [85] M. Engliš, J. Eschmeier: Geometric Arveson-Douglas conjecture, *Adv. Math.* 274 (2015), 606–630; corrigendum, *ibid.* 278 (2015), 254.
- [86] S.-T. Ali, M. Engliš: Hermite polynomials and quasi-classical asymptotics, *J. Math. Phys.* 55 (2014), 042102.
- [87] M. Engliš, K. Falk, B. Iochum: Spectral triples and Toeplitz operators, *J. Noncomm. Geom.* 9 (2015), 1041–1076.
- [88] M. Engliš, H. Xu: Forelli-Rudin construction and asymptotic expansion of Szegő kernel on Reinhardt domains, *Osaka J. Math.* 52 (2015), 905–929.
- [89] H. Bommier-Hato, M. Engliš, E.-H. Youssfi: Bergman kernels, TYZ expansions and Hankel operators on the Kepler manifold, *J. Funct. Anal.* 271 (2016), 264–288.
- [90] S.-T. Ali, M. Engliš: Orthogonal polynomials, Laguerre Fock space and quasi-classical asymptotics, *J. Math. Phys.* 56 (2015), 072109.
- [91] M. Engliš: High-power asymptotics of some weighted harmonic Bergman kernels, *J. Funct. Anal.* 271 (2016), 1243–1261.
- [92] M. Engliš: Sobolev spaces on bounded symmetric domains, *Complex Vars. Ellipt. Eqs.* 60 (2015), 1712–1726.
- [93] M. Engliš, G. Zhang: Hankel operators and the Dixmier trace on the Hardy space, *J. London Math. Soc.* 94 (2016), 337–356.
- [94] S.H.H. Chowdhury, S.-T. Ali, M. Engliš: Noncommutative coherent states and related aspects of Berezin-Toeplitz quantization, *J. Phys. A: Math. Theor.* 50 (2017), 195203 (19 pp.).
- [95] M. Engliš, G. Zhang: Toeplitz operators on higher Cauchy-Riemann spaces, *Documenta Math.* 22 (2017), 1081–1116.
- [96] M. Engliš, H. Upmeier: Reproducing kernel functions and asymptotic expansions on Jordan-Kepler manifolds, *Adv. Math.* 347 (2019), 780–826.
- [97] M. Engliš: Uniqueness of smooth radial balanced metrics on the disc, *Complex Vars. Ellipt. Eqs.* 64 (2019), 519–549.
- [98] M. Engliš, H. Xu: Higher Laplace-Beltrami operators on bounded symmetric domains, *Acta Math. Sinica* 34 (2018), 1297–1312.
- [99] H. Bommier-Hato, M. Engliš, E.-H. Youssfi: Radial balanced metrics on the unit ball of the Kepler manifold, *J. Math. Anal. Appl.* 475 (2019), 736–754.
- [100] M. Engliš, G. Zhang: Connection and curvature on bundles of Bergman and Hardy spaces, *Doc. Math.* 25 (2020), 189–217.
- [101] M. Engliš:  $Q_p$ -spaces for weighted Möbius actions, *J. Math. Anal. Appl.* 477 (2019), 1434–1462.

## List of talks of Miroslav Engliš

1. Talks at international conferences and academic institutions abroad:

a) talks at international conferences

Legend:

- $\spadesuit$  = plenary talk
- $\star\star\star$  = invited talk, all expenses covered (including airfare);
- $\star\star$  = invited talk, all expenses covered except travel;
- $\star$  = invited talk, but some local expenses not covered;
- = talk as an ordinary participant.

- *Inner-outer factorization of operators and Density of Toeplitz operators on Bergman space*, FAS 23, Alšovice, Czech Republic 1988
- \* *Functions invariant under the Berezin transform*, Banach Centennial, Warszawa, 1992
- \* *Berezin transform on the annulus: some open problems*, Miniconference on Bounded Symmetric Domains and Hankel operators, Lund, Sweden, 1993
- *Toeplitz operators and the Berezin transform*, FAS 26, Paseky, Czech Republic 1993
- \* *Correspondence principle for the quantized annulus*, Miniconference on Bounded Symmetric Domains and Hankel operators, Lund, Sweden, 1994
- \* *Asymptotic behaviour of reproducing kernels of weighted Bergman spaces*, Miniconference on Bounded Symmetric Domains and Hankel operators, Lund, Sweden, 1996
- *On an inequality involving the Bergman shift*, Workshop on Functional Analysis and its Applications, Nemecká, Slovakia, 1997
- \* *Asymptotic behavior of reproducing kernels, Berezin quantization and mean-value theorems*, AMS Central Sectional Meeting, Milwaukee, 1997
- *An analytic model for commuting operator tuples*, 2nd Workshop on Functional Analysis and its Applications, Nemecká, Slovakia, 1999
- \*\* ♠ *Reproducing kernels and mean value properties*, Conference celebrating 90 years of the reproducing kernel property, Krakow, 2000
- *An analytic model for commuting operator tuples*, International Conference on Abstract Analysis (ICAA 2000), South Africa, 2000
- \*\* ♠ *Berezin quantization on pseudoconvex domains*, XIX-th Workshop on Geometric Methods in Physics, Bialowieza, Poland, 2000
- \*\* *Reproducing kernels and mean value properties*, Function Spaces, Interpolation and Related Topics, Lund, Sweden, 2000
- \* *Some aspects of the Berezin transform*, XX-th Workshop on Geometric Methods in Physics, Bialowieza, Poland, 2001
- *Iterates, fixed points and the boundary behaviour of the Berezin transform*, 3rd ISAAC Congress, Berlin, 2001
- *Analytic models for commuting operator tuples II*, 3rd Workshop on Functional Analysis and its Applications, Nemecká, Slovakia, 2001
- \*\* ♠ *A review of (Berezin and other) quantization methods in physics*, 24th International Colloquium on Group Theoretical Methods in Physics (GROUP 24), Paris, 2002
- \*\*\* *Some problems in operator theory on symmetric domains*, Lorentz Center, Leiden, 2002
- \*\*\* ♠ *Some aspects of Bergman kernels*, Hayama Conference on Several Complex Variables, Tokyo, 2002
- *Minimal  $L^\infty$ -type spaces on which the Bergman projection is continuous*, International Conference on Abstract Analysis (ICAA 2003), South Africa, 2003
- *Operator models and Arveson's curvature invariant*, 4th Workshop on Functional Analysis and its Applications, Nemecká, Slovakia, 2003

- \*\* ♠ *Some variations on the Berezin quantization method*, Contemporary problems in Mathematical Physics (COPROMAPH3), Cotonou, Benin, 2003
- \*\* ♠ *A characterization of symmetric domains*, Hayama Conference on Several Complex Variables, Tokyo, 2003
- \*\*\* ♠  *$Q_p$  spaces on bounded symmetric domains*, 13th International Conference on Finite or Infinite Dimensional Complex Analysis and Applications (ICFIDCAA), Shantou, China, 2005
- \*\* *Toeplitz operators and group representations*, 36th All-Iranian Mathematical Conference (AIMC36), Yazd, Iran, 2005
- \*\*\* *Harmonic and pluriharmonic Berezin transforms*, Complex Analysis from the Geometric Viewpoint, Leipzig, 2005
- \*\*\* ♠ *Bergman kernels: boundary behaviour, quantization, and related topics*, RIMS Kyoto, Japan, 2005
- \*\*\* ♠ *Harmonic and pluriharmonic Berezin transforms*, Hayama Symposium on Several Complex Variables, 2005
- \*\*\* *Toeplitz operators and group representations*, British Mathematical Colloquium (BMC06), Newcastle upon Tyne, 2006
- \*\*\* ♠ *Bergman spaces and group representations* (also a session talk: *Toeplitz operators and Segal-Bargmann analysis*), FMS conference on Analytic Function Spaces, Joensuu/Helsinki, Finland, 2006
- \*\*\* ♠ *A matrix-valued Berezin-Toeplitz quantization and Deformation quantization and locally convex spaces* (two lectures), Toeplitz operator theory and deformation quantization, CTQM, Aarhus, Denmark, 2007
- *Toeplitz operators and Segal-Bargmann analysis*, Trends in Harmonic Analysis, Strobl, Austria, 2007
- \*\* ♠ *Toeplitz operators and weighted Bergman kernels*, Hayama Symposium on Several Complex Variables, Japan, 2007
- \*\*\* *Toeplitz operators from various viewpoints*, Workshop on the Riemann-Hilbert problem and Toeplitz operators, ICMS, Edinburgh, 2007
- *Group representations, Toeplitz operators and modulation spaces*, Nemecka, Slovensko, 2007
- \*\* *Covariant derivatives of the Berezin transform*, Recent Progress in Operator Theory and Function Theory, CIRM Luminy, Marseille, 2008
- \*\*\* ♠ *Toeplitz operators, weighted Bergman kernels, and Dixmier traces*, Function Spaces and Their Operators, St. Louis, USA, 2008
- \*\* *Ramadanov conjecture and line bundles over compact symmetric spaces*, Workshop on problems related to Bergman kernels, Beijing, China, 2008
- \*\* *Ramadanov conjecture and line bundles over compact symmetric spaces*, School and Conference on Differential Geometry, ICTP Trieste, Italy, 2008
- \* ♠ *Generalized Toeplitz operators and weighted Bergman kernels*, Workshop on Complex and CR Geometry, Partial Differential Equations and Invariant Theory, Prague, 2008
- \*\* *Hankel operators and the Dixmier class*, Théorie spectrale des opérateurs et applications, CIRM Luminy, Marseille, 2008
- \* *Toeplitz quantization on real symmetric domains*, EQuaLS2, Kuala Lumpur, Malaysia, 2008
- \*\*\* ♠ *Toeplitz quantization on real symmetric domains*, 37th Seminar Sophus Lie, Paderborn, Germany, 2009
- \*\* ♠ *The many faces of Berezin transform* (3 lectures), IMMO9: Harmonic Analysis and Partial Differential Equations, Marrakech, Morocco, 2009
- \*\* *Hankel operators and the Dixmier trace*, MFO Oberwolfach, 2009
- \*\*\* ♠ *The many faces of Berezin transform* (4 lectures), Workshop in Analysis and its Applications, Indian Institute of Science, Bangalore, 2009
- \* *Hankel operators and the Dixmier trace*, Canadian Mathematical Society Summer 2009 Meeting, St John's, Canada, 2009

- *Toeplitz quantization on real symmetric domains*, Conference on Time-Frequency, Strobl, Austria, 2009
- *Berezin transform on the harmonic Fock space*, ISAAC Congress 2009, London, 2009
- \*\* *Toeplitz quantization on real symmetric domains*, 3rd International Conference on Geometry and Quantization (GEOQUANT), Luxembourg, 2009
- \*\*\* ♠ *Toeplitz quantization on real symmetric domains*, International Workshop on Operator Theory and Applications (IWOTA09), Guanajuato, Mexico, 2009; (also section talk “Hankel operators and the Dixmier trace”)
- \*\* *Analytic continuation of weighted Bergman kernels*, Erwin Schrödinger Institut, Wien, 2009
- \* *Harmonic Bergman kernels and Berezin transforms*, Recent Advances in Function Related Operator Theory (RAFROT), Rincon, Puerto Rico, 2010
- \*\* *Analytic continuation of weighted Bergman kernels*, CIRM Luminy, Marseille, 2010
- \*\*\* ♠ *Berezin transform on the harmonic Fock space*, Functions and Operators 2010, Krakow, 2010
- \*\* *The Peter-Weyl decomposition for Toeplitz quantizations*, Multivariable Operator Theory, BIRS, Banff, Canada, 2010
- \*\*\* ♠ *Peter-Weyl decomposition of Toeplitz quantizations*, Seminar Sophus Lie 40, Marburg, 2011
- \*\*\* *Wigner transform on symmetric spaces*, Harmonic and Complex Analysis and its Applications, Wien, 2011
- \*\* *Harmonic Bergman kernels and Berezin transforms*, Complex and Riemannian Geometry (KAWA), CIRM Luminy, Marseille, 2011
- *Wigner transform on symmetric spaces*, Canadian Mathematical Society Summer 2011 Meeting, Edmonton, Canada, 2011
- \*\*\* ♠ *An excursion into Berezin-Toeplitz quantization and related topics* (4 lectures), Analysis with Applications to Mathematical Physics, Göttingen, 2011
- \*\*\* ♠ *Boundary behaviour of harmonic Bergman kernels and Hankel operators and the Dixmier trace*, Tambara Workshop on the Bergman kernel and Related Topics, Tambara, Japan, 2011
- \* *Dixmier trace on Bergman spaces*, Workshop on Toeplitz Operators, Växjö, Sweden, 2012
- \*\* *Analytic continuation of weighted Bergman kernels*, Erwin Schrödinger Institut, Wien, 2012
- *Dixmier trace on the Fock space*, Canadian Operator Symposium, Kingston, Canada, 2012
- \* *Quantization, deformation and orthogonal polynomials*, APCWQIS6-EQuaLS6, Kuala Lumpur, Malaysia, 2012
- \*\*\* ♠ *Quantization, deformation and orthogonal polynomials*, Conference on the occasion of Martin Schlichenmaier’s 60th birthday, Luxembourg, 2012
- \*\* ♠ *Toeplitz and Hankel operators on weighted Fock spaces*, Hilbert Function Spaces, Gargnano, Italy, 2013
- \* *Dixmier trace for Toeplitz and Hankel operators on weighted Fock spaces*, 26th Nordic Congress of Mathematicians, Lund, Sweden, 2013
- \* *Spectral triples and Toeplitz operators*, GEOQUANT13, Erwin Schrödinger Institut, Wien, 2013
- *Arveson-Douglas conjecture and Toeplitz operators*, Canadian Mathematical Society Winter 2013 Meeting, Ottawa, Canada, 2013
- \*\* ♠ *Arveson-Douglas conjecture and Toeplitz operators*, MFO Oberwolfach, 2014
- *Coherent states and orthogonal polynomials*, Modern Time-Frequency Analysis, Strobl, Austria, 2014
- \*\*\* ♠ *Analytic continuation of Toeplitz operators*, Function Spaces and Harmonic Analysis, CIRM Luminy, Marseille, 2014
- \*\* ♠ *The Fock space, quantization, and Hermite (and other) polynomials*, Recent Advances in Operator Theory and Operator Algebras (OTOA 2014), ISI Bangalore, India, 2014
- \*\* *Analytic continuation of Toeplitz operators*, Multivariable Operator Theory, BIRS, Banff, Canada, 2015

- \* *High-power asymptotics of weighted harmonic Bergman kernels*, Nordan2015, Reykjavik, Iceland, 2015
- \* ♠ *Orthogonal Polynomials, Laguerre Fock Space and Quasi-classical Asymptotics*, GeoQuant, Madrid, Spain, 2015
- \*\* ♠ *Deformation quantization and applications to noncommutative geometry* (series of 5 lectures), EQuaLS8, Kuala Lumpur, Malaysia, 2016
- *High-power asymptotics of weighted harmonic Bergman kernels*, Nordan2016, Stockholm, Sweden, 2016
- *A Tian-Yau expansion for harmonic kernels*, Geometric Analysis in Control and Vision Theory, Voss, Norway, 2016
- *Laguerre polynomials, Barut-Girardello Fock space, and Toeplitz operators*, Time-Frequency Analysis and Related Topics, Strobl, Austria, 2016
- \*\* ♠ *Hankel operators and the Dixmier trace on the Hardy space*, CIRM Luminy, Marseille, France, 2016
- \*\* ♠ *Hankel operators and the Dixmier trace on the Hardy space*, Hilbert Modules in Analytic Function Spaces, TSIMF Sanya, China, 2017
- \*\* ♠ *Bergman kernels and asymptotic expansions on Jordan-Kepler manifolds*, Complex Analysis and Geometry XXIII, Levico Terme, Italy, 2017
- \*\* ♠ *Noncommutative coherent states and related aspects of Berezin-Toeplitz quantization*, Forum on Analysis, Geometry and Mathematical Physics, International Conference on Applied Mathematics and Informatics (ICAMI 2017), San Andres, Colombia, 2017
- *Reproducing kernels and distinguished metrics*, Nordan2018, Stavanger, Norway, 2018
- *Noncommutative coherent states and related aspects of Berezin-Toeplitz quantization*, Harmonic Analysis and Applications, Strobl, Austria, 2018
- \* ♠ *Reproducing kernels and distinguished metrics*, Operator Algebras, Toeplitz Operators and Related Topics, Boca del Rio, Mexico, 2018

b) lectures (some of them invited) at universities and scientific institutions abroad

- *Mean value theorems and operator theory*, Lund University, Sweden, 1992
- *Toeplitz and essentially Toeplitz operators*, Lund University, Sweden, 1992
- *Toeplitz operators and the Berezin transform*, Lancaster University, Lancaster, UK, 1993
- *A new approach to Toeplitz symbol calculus on  $H^2$* , Lund University, Sweden, 1993
- *Berezin quantization, reproducing kernels, and the Poincaré metric on complex domains*, Lund University, Sweden, 1995
- *Biharmonic Green functions and the factorization in the Bergman space*, Lund University, Sweden, 1995
- *Three algebras of differential operators on a Kähler manifold*, Mathematical Colloquium, University of Lund, Sweden, 1996
- *Weighted biharmonic Green functions and an inequality for the Bergman shift*, University of Wisconsin at Madison, 1997
- *Weighted biharmonic Green functions and an inequality for the Bergman shift*, Washington University, St. Louis, 1997
- *Weighted Bergman kernels, the Berezin transform and Kähler geometry on strongly pseudoconvex domains*, University of Lund, Sweden 1998
- *Weighted Bergman kernels*, Instytut Matematyki PAN, Krakow, 1998
- *Weighted Bergman kernels and quantization*, Erwin Schrödinger Institut, Wien, 1999
- *The  $\bar{\partial}$ -Neumann problem in unbounded domains*, ESI Program on Complex Analysis, Erwin Schrödinger Institut, Wien, 2000
- *An analytic model for commuting operator tuples*, University of Haifa, Israel, 2001
- *Bergman kernels and quantization*, Universität Mannheim, 2001

- *Some aspects of the Bergman kernels and the Berezin transform*, Colloquium talk for the Finnish Mathematical Society, Helsinki, 2001
- *Analytic models for commuting operator tuples*, Lund University, Sweden, 2002
- *A review of (Berezin and other) quantization methods*, Centre de Recherches Mathématiques (CRM), Montreal, Canada, 2002
- *Operator models on bounded symmetric domains*, Chalmers TH/Göteborg University, Sweden, 2002
- *A review of (Berezin and other) quantization methods*, Lund, Sweden, 2002
- *Deformation quantization and operator calculi*, Concordia University, Montreal, Canada, 2003
- *Bergman kernels and quantization* (3 lectures), Pohang Institute for Science and Technology, South Korea, 2003
- *Berezin quantization: a crossroad of complex analysis, PDE, and mathematical physics*, Santiago de Chile, 2004
- *Forelli-Rudin estimates in several complex variables*, University of Helsinki/Finnish Mathematical Society, 2004
- *Some applications of the Forelli-Rudin estimates*, Chalmers Tekniska Högskola/Göteborg University, 2004
- *On the derivatives of the Berezin transform*, Erwin Schrödinger Institut, Wien, IV 2005
- *Berezin-Toeplitz quantization over matrix domains*, Concordia University, Montreal, 2005
- *$Q_p$ -spaces on bounded symmetric domains*, Erwin Schrödinger Institut, Wien, X 2005
- *Berezin-Toeplitz quantization over matrix domains*, Universita Catolica, Santiago de Chile, 2006
- *Toeplitz operators and Segal-Bargmann analysis*, Concordia University, Montreal, 2006
- *(Pluri)harmonic Berezin transforms on bounded symmetric domains*, Erwin Schrödinger Institut, Wien, 2006
- *Toeplitz operators, localization operators, and operator calculi on symmetric spaces; Some new approaches in Berezin-Toeplitz quantization; Toeplitz operators and weighted Bergman kernels*, (3 lectures), Peking University, China, 2006
- *Some new approaches in Berezin-Toeplitz quantization*, Nankai Mathematical Institute, Tianjin, China, 2006
- *Toeplitz operators and weighted Bergman kernels*, Chalmers TH/Göteborg University, Sweden, 2006
- *Analysis on Complex Symmetric Spaces* (three-month lecture course), Erwin Schrödinger Institut, Wien, 2007
- *Toeplitz operators and weighted Bergman kernels*, Universität Wien, 2007
- *Hankel operators and the Dixmier class*, University of Newcastle upon Tyne, UK, 2008
- *Toeplitz quantization on real symmetric domains*, Concordia University, Montreal, Canada, 2008
- *Hankel operators and the Dixmier class*, Chalmers Tekniska Högskola/Göteborg University, Sweden, 2008
- *Berezin transform on the harmonic Fock space*, Université de Provence, Marseille, 2009
- *Weighted Bergman kernels for logarithmic weights*, Chalmers Tekniska Högskola-Göteborg University, Sweden, 2009
- *Hankel operators and the Dixmier trace*, Lund University, Sweden, 2009
- *The Peter-Weyl decomposition for Toeplitz quantizations*, Concordia University, Montreal, Canada, 2010
- *Analytic continuation of weighted Bergman kernels*, Chalmers Tekniska Högskola-Göteborg University, Sweden, 2010
- *Berezin-Toeplitz operators and the Dixmier trace*, CPT, Université Aix Marseille, France, 2012

- *Arveson-Douglas conjecture and Toeplitz operators*, Universität des Saarlandes, Saarbrücken, Germany, 2014
- *High-power asymptotics of weighted harmonic Bergman kernels*, Göteborg, Sweden, 2015
- *Quantization and asymptotic expansions*, Universität Marburg, Germany, 2016
- *An excursion into Berezin-Toeplitz quantization and related topics; Arveson-Douglas conjecture and Toeplitz operators; Reproducing kernels and distinguished metrics* (3 lectures — Shoemaker Lecture Series), University of Toledo, Ohio, USA, 2017
- *Bergman kernels and asymptotic expansions on Jordan-Kepler manifolds*, Göteborg, Sweden, 2017

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b) domestic (Czech Republic)

- grant ČSAV no. 11916, 1991–1992 (chief investigator: P. Vrbová)
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