

## CURRICULUM VITAE

**Marko Tadić**, Professor of mathematics

Birthday: November 16, 1953

Birthplace: Tomislavgrad

### Academic degrees:

B.S. 1976, University of Zagreb

M.S. 1979, University of Zagreb

Ph.D. 1980, University of Zagreb

### Professional experience at the University of Zagreb:

1976-1983, Instructor, University of Zagreb

1983-1986, Assistant Professor, University of Zagreb

1986-1987, Associate Professor, University of Zagreb

1987 - , Professor, University of Zagreb

### Visiting positions:

1983 Summer, Visitor, University of Chicago

1983 November, Visitor, Université Paris VII

1984-1985, Researcher, Max-Planck-Institute für Mathematik, Bonn

1986 Summer, Visiting Professor\*, University of Chicago

1987 Summer, Visiting Professor\*, Université Paris-Orsay

1988 September/October, Visiting Professor\*, University of Chicago

1989-1990, Visiting Professor, University of Utah

1992 February, Visiting Professor\*, University of Chicago

1992-1994, Guest, Sonderforschungsbereich 170, Geometrie und Analysis, Göttingen

1995 August/September, Guest\*, Sonderforschungsbereich 170,  
Geometrie und Analysis, Göttingen

1996 Summer semester, Guest, Mathematisches Institut Der Universität, Münster

1996 November/December, Visiting Professor\*, University of Chicago

1997 March and April, Visiting Professor, The Hong Kong University  
of Science and Technology

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\*one month period

1997 June, Visiting Professor\*, Université Denis Diderot - Paris 7  
 2000 January/February, Guest, Sonderforschungsbereich 478,  
     Geometrische Strukturen, Münster  
 2001-2002, Visiting Professor, University of Utah  
 2002 August, Senior Member\* at Institute of Mathematical Sciences, NUS, Singapore  
 2003 May, Visiting professor\* at Université Denis Diderot - Paris 7  
 2005 February and March, Visiting Scholar, The Hong Kong University  
     of Science and Technology  
 2008 February and March, Visiting Scholar, The Hong Kong University  
     of Science and Technology

#### **Honors:**

Full member of Croatian Academy of Sciences and Arts (2000- )  
 Member of Academia Europaea (2000- )  
 Prize "Rudjer Bošković" 1989 (the highest annual prize for natural sciences in Croatia)

#### **Additional information:**

Editor in chief of "Glasnik Matematički" (1998-2001)

#### **Department Duties:**

1983-1984, 1986-1989, 1990-1992 and 1996-2000, 2003-2005, Head of the Division for  
 Algebra and Logic (Department of Mathematics, University of Zagreb)  
 1994-2000, Director of Graduate Study (Mathematics, University of Zagreb)

#### **Ph.D. students:**

Ivica Gusić (finished in 1996)  
 Goran Muić (finished in 1997)  
 Siniša Žampera (finished in 1997)  
 Dubravka Ban (finished in 1998)  
 Marcela Hanzer (jointly with G. Muić; finished in 2005)

#### **Research Interest:**

Representation theory of reductive groups, in particular over  $p$ -adic fields, and  
 interaction of this theory with the modern theory of automorphic forms (through  
 Langlands program).

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\*one month period

**Research papers:**

- [1] Marko Tadić, Harmonic analysis on reductive groups over local fields, **Berichte der Mathematisch Statistischen Sektion im Forschungszentrum**, Graz, vol. 161, 1981, pages **1-11**.
- [2] Marko Tadić, The C\*-algebra of  $\mathrm{SL}(2, k)$ , **Glasnik Matematički**, vol. 17 (37), 1982, pages **249-263**.
- [3] Marko Tadić, Harmonic analysis of spherical functions on reductive groups over  $p$ -adic fields, **Pacific Journal of Mathematics**, vol. 109, 1983, pages **215-236**.
- [4] Marko Tadić, The topology of the dual space of a reductive group over a  $p$ -adic field, **Glasnik Matematički**, vol. 18 (38), 1983, pages **259-279**.
- [5] Marko Tadić, Dual spaces of reductive groups, **Berichte der Mathematisch Statistischen Sektion im Forschungszentrum**, Graz, vol. 200, 1983, pages **1-12**.
- [6] Marko Tadić, Dual spaces of adelic groups, **Glasnik Matematički**, vol. 19 (39), 1984, pages **39-48**.
- [7] Marko Tadić, Proof of a conjecture of Bernstein, **Mathematischen Annalen**, vol. 272, 1985, pages **11-16**.
- [8] Marko Tadić, Unitary dual of  $p$ -adic  $\mathrm{GL}(n)$ , Proof of Bernstein Conjectures, **Bulletin of the American Mathematical Society**, vol. 13, 1985, pages **39-42**.
- [9] Marko Tadić, Unitary representations of general linear group over real and complex field, MPI/SFB preprint 85-22, Bonn, 1985.
- [10] Marko Tadić, Spherical unitary dual of general linear group over non-archimedean local field, **Annales de l'Institut Fourier**, vol. 36, 1986, pages **47-55**.
- [11] Marko Tadić, Classification of unitary representations in irreducible representations of general linear group (non-archimedean case), **Annales Scientifiques de l'École Normale Supérieure**, vol. 19, 1986, pages **335-382**.
- [12] Marko Tadić, Topology of unitary dual of non-archimedean  $\mathrm{GL}(n)$ , **Duke Mathematical Journal**, vol. 55, 1987, pages **385-422**.
- [13] Marko Tadić, Unitary representations of  $\mathrm{GL}(n)$ , derivatives in the non-archimedean case, **Berichte der Mathematisch-Statistischen Sektion in der Forschungsgesellschaft Joaneum**, Graz, vol. 281, 1987, pages **281/1-281/19**.
- [14] Marko Tadić, On limits of characters of irreducible unitary representations, **Glasnik Matematički**, vol. 23 (43), 1988, pages **15-25**.
- [15] Marko Tadić, Geometry of dual spaces of reductive groups (non-archimedean case), **Journal d'Analyse Mathématique**, vol. 51, 1988, pages **139-181**.
- [16] Marko Tadić, Induced representations of  $\mathrm{GL}(n, A)$  for  $p$ -adic division algebras  $A$ , **Journal für die reine und angewandte Mathematik**, vol. 405, 1990, pages **48-77**.

- [17] Marko Tadić, On Jacquet modules of induced representations of  $p$ -adic symplectic groups, in **Harmonic Analysis on Reductive Groups**, Proceedings, Bowdoin College 1989, editors W. Barker and P. Sally, Progress in Mathematics 101, Birkhäuser, Boston, 1991, pages **305-314**.
- [18] Marko Tadić, Notes on representations of non-archimedean  $\mathrm{SL}(n)$ , **Pacific Journal of Mathematics**, vol. 152, 1992, pages **375-396**.
- [19] Paul J. Sally, Jr. and Marko Tadić, Induced representations and classifications for  $\mathrm{GSp}(2, F)$  and  $\mathrm{Sp}(2, F)$ , **Mémoires Société Mathématique de France**, vol. 52, 1993, pages **75-133**.
- [20] Marko Tadić, An external approach to unitary representations, **Bulletin of the American Mathematical Society**, vol. 28, 1993, pages **215-252**.
- [21] Marko Tadić, Representations of  $p$ -adic symplectic groups, **Compositio Mathematica**, vol. 90, 1994, pages **123-181**.
- [22] Marko Tadić, Representations of classical  $p$ -adic groups, in **Representations of Lie groups and quantum groups** (editors V. Baldoni i M. Picardello), Pitman Research Notes in Mathematics Series 311, Longman, Essex, 1994, pages **129-204**.
- [23] Marko Tadić, On characters of irreducible unitary representations of general linear groups, **Abhandlungen aus dem Mathematischen Seminar der Universität Hamburg**, vol. 65, 1995, pages **341-363**.
- [24] Marko Tadić, Structure arising from induction and Jacquet modules of representations of classical  $p$ -adic groups, **Journal of Algebra**, vol. 177, 1995, pages **1-33**.
- [25] Marko Tadić, Correspondence on characters of irreducible unitary representations of  $GL(n, \mathbb{C})$ , **Mathematische Annalen**, vol. 305, 1996, pages **419-438**.
- [26] Marko Tadić, Jacquet modules and induced representations, **Mathematical Communications**, vol. 3, 1998, pages **1-17**.
- [27] Marko Tadić, On regular square integrable representations of  $p$ -adic groups, **American Journal of Mathematics**, vol. 120, 1998, pages **159-210**.
- [28] Marko Tadić, On reducibility of parabolic induction, **Israel Journal of Mathematics**, vol. 107, 1998, pages **29-91**.
- [29] Marko Tadić, Square integrable representations of classical  $p$ -adic groups corresponding to segments, **Representation Theory**, vol. 3, 1999, pages **58-89**.
- [30] Marko Tadić, A family of square integrable representations of classical  $p$ -adic groups in the case of general half-integral reducibilities, **Glasnik Matematički**, vol. 37(57), 2002, pages **21-57**.
- [31] Colette Moeglin and Marko Tadić, Construction of discrete series for classical  $p$ -adic groups, **Journal of the American Mathematical Society**, vol. 15, 2002, pages **715-786**.
- [32] Allen Moy and Marko Tadić, The Bernstein center in terms of invariant locally integrable functions, **Representation Theory**, vol. 6, 2002, pages **313-329** (and Erratum, Represent. Theory 9, 2005, 455-456).

- [33] Erez Lapid, Goran Muić and Marko Tadić, On the generic unitary dual of quasi-split classical groups, **International Mathematical Research Notes**, no. 26, 2004, pages **1335–1354**.
- [34] Marko Tadić, On classification of some classes of irreducible representations of classical groups, in **Representations of real and  $p$ -adic groups**, editors Eng-Chye Tan and Chen-Bo Zhu, Lecture Notes Series, Institute for Mathematical Sciences, National University of Singapore vol. 2, Singapore University Press and World Scientific, Singapore, 2004, pages **95–162**.
- [35] Marko Tadić, Square integrable representations of segment type (generic reducibilities), **Functional Analysis VIII**, editors D. Bakić, G. Muić, P. Pandžić and G. Peškir, Various Publ. Ser. (Arhus) 47, Arhus 2004, pages **167–204**.
- [36] Jing-Song Huang and Marko Tadić, Generalized spherical functions on reductive  $p$ -adic groups, **Transactions of the American Mathematical Society**, vol. 357, 2005, pages **2081–2117**.
- [37] Allen Moy and Marko Tadić, Conjugacy class asymptotics, orbital integrals, and the Benstein Center: the case of  $SL(2)$ , **Representation Theory**, vol. 9, 2005, pages **327–353**
- [38] Marko Tadić, On the representation theory of  $GL(n)$  over a  $p$ -adic division algebra and unitarity in the Jacquet-Langlands correspondences, **Pacific Journal of Mathematics**, vol. 223, 2006, pages **167–200**.
- [39] Marko Tadić, On reducibility and unitarizability for classical  $p$ -adic groups, some general results, **Canadian Journal of Mathematics**, vol. 61, 2009, pages **427–450**.
- [40] Marko Tadić, An exercise on unitary representations in the case of complex classical groups, **Functional Analysis IX**, editors G. Muić and J. Hoffmann-Jørgensen, Various Publ. Ser. (Arhus) 48, Arhus 2007, pages **91–102**.
- [41] Allen Moy and Marko Tadić, Some algebras of essentially compact distributions of a reductive  $p$ -adic group, **Harmonic analysis, group representations, automorphic forms and invariant theory - In honour of Roger E. Howe**, edited by Jian-Shu Li, Eng-Chye Tan, Nolan Wallach and Chen-Bo Zhu, Lecture Notes Series, Institute for Mathematical Sciences, National University of Singapore vol. 12, World Scientific Publishing Co., Singapore, 2007, pages **247–275**.
- [42] Marko Tadić,  $GL(n, \mathbb{C})^\wedge$  and  $GL(n, \mathbb{R})^\wedge$ , **Automorphic Forms and  $L$ -functions II, Local Aspects**, edited by D. Ginzburg, E. Lapid and D. Soudry, Contemporary Mathematics, vol. 489, 2009, pages **285–313**.
- [43] Goran Muić and Marko Tadić, Unramified unitary duals for split classical  $p$ -adic groups; the topology and isolated representations (to appear in **Proceeding of the conference "On Certain  $L$ -functions"** in honor of F. Shahidi, 2007).
- [44] Allen Moy and Marko Tadić, A construction of elements in the Bernstein center for quasi-split groups (accepted for the publication in the **American Journal of Mathematics**).

- [45] Marcela Hanzer and Marko Tadić, A method of proving non-unitarity of representations of  $p$ -adic groups I (accepted for the publication in the **Mathematische Zeitschrift**).

### Preprints

- [46] Marko Tadić, On automorphic duals and isolated representations; a new phenomena.

### Invited Lectures:

- November, 1981, Speaker at the conference "Functional Analysis", International center for graduate studies Dubrovnik, Croatia
- November 1982, University of Graz, Graz, Austria
- July 1983, 2 talks at "Seminar on  $p$ -adic groups", University of Chicago, Chicago, USA
- November 1983, 2 talks at "Séminaire sur les groupes réductifs sur corps local", Université Paris VII, Paris, France
- November 1984, Speaker at the conference "Arithmetique et analyse harmonique", Université Paris VII, Paris, France
- December 1984, Max-Planck-Institute für Mathematik, Bonn, Germany
- February 1985, Speaker at the conference "Enveloping algebras of Lie algebras", Oberwolfach, Germany
- March 1985, Seminar "Modular forms lunch", Max-Planck-Institute für Mathematik, Bonn, Germany
- June 1985, Lecture at "Séminarie sur less groupes réductifs sur corps local", Université Paris VII, Paris, France
- November 1985, 3 talks at the conference "Functional analysis", International center for postgraduate studies, Dubrovnik, Croatia
- April 1986, Speaker at the conference "Algebraic groups and representation theory", Mathematisches Institut der Universität, Göttingen, Germany
- July 1986, 2 talks at the Seminar on representation theory, University of Chicago, Chicago, USA
- July 1986, Speaker at the "United States-France conference on  $P$ -adic groups", University of Iowa, Iowa City, USA
- August 1986, Speaker at the AMS-IMS-SIAM Summer Research Conference "Representation Theory of Lie Groups", University of California at Santa Cruz, Santa Cruz, USA
- October 1986, University of Graz, Graz, Austria
- July 1987, Lecture at the special period "Orbites unipotentes, représentations des

groupes finites, réels et  $p$ -adiques et représentations des algébras de Hecke”, Université Paris VII and Université Paris- Orsay, Paris, France

- February 1988, Lecture at Seminar on representation theory, University of Chicago, Chicago, USA
- February 1988, 2 talks at ”Workshop on  $p$ -adic groups with applications to automorphic forms”, Mathematical Science Research Institute, Berkeley, USA
- September 1988, 2 talks at the Seminar on representation theory, University of Chicago, Chicago, USA
- October 1988, Lecture at the Seminar on representation theory, University of Utah, Salt Lake City, USA
- December 1988, University of Graz, Graz, Austria
- August 1989, Speaker at the conference ”Harmonic analysis on reductive groups”, Bowdoin College, Brunswick, ME, USA
- November 1989, Colloquium and seminar talk at the University of Washington, Seattle, USA
- November 1989, Colloquium at the University of Utah, Salt Lake City, USA
- July 1991, Course of 8 lectures at the European School of Group Theory, C.I.R.M. Luminy-Marseille, France
- February 1992, 2 talks at the Representation theory seminar, University of Chicago, Chicago, USA
- February 1992, Colloquium at the Yale University, New Haven, USA
- February 1992, Lecture at the Seminar on representation theory, University of Purdue, West Lafayette, USA
- March 1992, Lecture at the Seminar on representation theory, University of Utah, Salt Lake City, USA
- November 1992, Lecture at mini conference on the representation theory of  $p$ -adic reductive groups, Mathematisches Institut der Universität zu Köln, Köln, Germany.
- June 1993, Colloquium at Bergische Universität, Wuppertal, Germany
- July 1993, Lecture at Mathematical Seminar of the University of Hamburg, Hamburg, Germany
- October 1993, Colloquium at Mathematisches Institut der Universität, Göttingen, Germany
- February 1994, Lecture at the conference ”Representation theory of locally compact groups”, Oberwolfach, Germany
- April 1994, Lecture at Institut de mathématiques, Université de Lausanne, Lausanne, Switzerland
- July 1994, Speaker at Colloque ‘Representations des groupes réductifs  $p$ -adiques”, C.I.R.M. Luminy-Marseille, France

- June 1995, Lecture at the conference to mark the end of the SFB 170 "Geometrie und Analysis", Mathematisches Institut der Universität, Göttingen, Germany
- June 1996, Lecture at Seminar des Graduirtenkollegs, Mathematisches Institut Der Universität, Münster, Germany
- July 1996, Lecture at "The First Croatian Mathematical Congress", Zagreb, Croatia
- December 1996, Lecture at the seminar "Representations of  $p$ -adic groups", University of Chicago, Chicago, USA
- March 1997, Colloquium, The Hong Kong University of Science and Technology, Hong Kong
- June 1997, Lecture at "Seminaire sur les Algebres Enveloppantes", Université Pierre et Marie Curie - Paris 6, Paris, France
- June 1997, Lecture at "Colloque Théorie des Groupes - Journées Solstice d'été", Institut de Mathématiques de Jussieu, Paris, France
- July 1997, Lecture at University of Chicago, Chicago, USA
- July 1997, Lecture at AMS-IMS-SIAM Joint Summer Research Conference "Representation theory of reductive groups", University of Washington, Seattle, USA
- September 1997, Lecture at the conference "Functional Analysis", International center for graduate studies Dubrovnik, Croatia
- June 1998, Lecture at the conference "Représentations du groupe  $p$ -adique  $Sp(4)$ ", C.I.R.M. Marseille-Luminy, France
- November 1998, Seminar talk at The Hong Kong University of Science and Technology, Hong Kong, China
- September 1999, Lecture at the conference "Functional Analysis", International center for graduate studies Dubrovnik, Croatia
- January 2000, Lecture at Seminar des Graduirtenkollegs, Mathematisches Institut Der Universität, Münster, Germany
- March 2000, Lecture at the conference "Automorphic forms and representation theory", Oberwolfach, Germany
- June 2000, Lecture at the conference "Mid-West Conference on Representation Theory and Automorphic Forms", University of Chicago, Chicago, USA
- November 2001, Lecture at the conference "Automorphic Forms and Representation Theory of  $p$ -adic Groups", Banff Center, Canada
- June 2002, Lecture at the conference "Fonctorialité de Langlands: progrès récents", C.I.R.M. Marseille-Luminy, France
- August 2002, Lecture and course of 10 lectures during the program "Representation Theory of Lie Groups", Institute of Mathematical Sciences, NUS, Singapore
- February 2003, Seminar talk at The Hong Kong University of Science and Technology, Hong Kong, China
- February 2003, Colloquium, The Hong Kong University of Science and Technology,

*Hong Kong, China*

- May 2003, Seminar talk at Université de Poitiers, Poitiers, France
- May 2003, Seminar talk at Université Denis Diderot - Paris 7, Paris, France
- June 2003, Lecture at the conference "Functional analysis", International center for postgraduate studies, Dubrovnik, Croatia
- December 2003, Three seminar talks at University of Minnesota, Minneapolis, USA
- April 2004, Seminar talk at The Hong Kong University of Science and Technology, Hong Kong, China
- June 2004, Plenary lecture at the Third Croatian Mathematical Congress, Split, Croatia
- August 2004, Lecture at the conference "International Symposium on Representation Theory and Harmonic Analysis", Urumqi, China
- December 2004, Lecture at the workshop on Representation Theory, Schrödinger Institute, Vienna, Austria
- May 2006, Lecture at the workshop "Automorphic forms and L-functions" (on occasion of 60-th birthday of S. Gelbart), Weizmann Institute, Rehovot, Israel
- May 2006, Lecture at the seminar, Humboldt-Universität, Berlin, Germany
- September 2006, Lecture at the seminar, Universität Bielefeld, Bielefeld, Germany
- December 2006, Lecture at the Schrödinger Institute, Vienna, Austria
- September 2007, Colloquium, The University of Tokyo, Tokyo, Japan
- September/October 2007, Minicourse of 4 lectures at The University of Tokyo, Tokyo, Japan
- October 2007, Lecture at the workshop "Spectra of arithmetic groups", Schrödinger Institute, Vienna, Austria
- December 2007, Lecture at "Seminaire Groupes Reductifs et Formes Automorphes", Université Denis Diderot - Paris VII, Paris, France
- February/March 2008, Minicourse of 4 lectures at The Hong Kong University of Science and Technology, Hong Kong, China
- December 2008, Three lectures at The Hong Kong University of Science and Technology, Hong Kong, China
- January 2009, Lecture at Schrödinger Institute, Vienna, Austria
- January 2009, Lecture at the workshop "Representation theory of reductive groups - local and global aspects", Schrödinger Institute, Vienna, Austria
- September 2009, Lecture at the conference "Geometry and Analysis of Automorphic Forms of Several Variables", University of Tokyo, Tokyo, Japan

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