CURRICULUM VITAE
(24 June 2021)

METOD SANIGA
Astronomical Institute, Slovak Academy of Sciences
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BASIC PERSONAL DATA

Date of Birth: 28/10/1959   Place of Birth: Liptovské Revúce, Slovak Republic
Nationality: Slovak   Marital Status: Married

ACADEMIC DEGREES

- Dr.Sc. in Mathematical Physics, Comenius University, Bratislava, 2012
- Ph.D. in Theoretical Astrophysics, Astronomical Institute, Slovak Academy of Sciences, 1991
- M.S. in Classical and Relativistic Astrophysics (Summa Cum Laude), Charles University, Prague, 1983

EMPLOYMENT

- 1984–1987: Slovak Academy of Sciences; Young Research Fellow
- 1988–1990: Slovak Academy of Sciences; Ph.D. Student
- 1991–2000: Slovak Academy of Sciences; Research Scientist (IIb)
- 2000–2012: Slovak Academy of Sciences; Senior Research Scientist (IIa)
- 2013–   : Slovak Academy of Sciences; Senior Research Scientist (I)
- 2014–2015: Vienna University of Technology, Vienna, Austria; Researcher (FWF)

RESEARCH ACTIVITIES

- 2008–now: Finite Geometry and Black Holes
- 2006–now: Solar Physics: Solar Corona
- 2003–now: Geometries and Algebras of Quantum (Information) Theory
- 1995–now: Algebra and Arithmetic of the Structure of Space-Time, Enigma of Time,
  Algebraic Geometry, Web Geometry, Enumerative Geometry,
  Psychopathology of Time and Space, 'Altered' States of Consciousness
- 1993–1994: Extragalactic Astrophysics
- 1988–1993: Solar Physics (Theory of Sunspots)
- 1984–1987: Gravitational Physics, Theory of Magnetic Monopole, Projective Geometry

VISITING SCHOLAR

(*PERIOD/HOST SCIENTIST/RESEARCH TOPIC*)

- ICB/UTBM, Université de Bourgogne Franche-Comté, Belfort, **France**
  (*September 8 – October 6, 2019/Prof. F. Holweck/Quantum Contextuality and Slim Finite Geometries*)
- Institute FEMTO-ST/CNRS and Université de Franche-Comté, Besançon, **France**
  (*September 27, 2019/Dr. M. Planat/Quantum Contextuality and Slim Finite Geometries*)
- ICB/UTBM, Université de Bourgogne Franche-Comté, Belfort, **France**
  (*September 9 – 30, 2018/Prof. F. Holweck/Symplectic Veldkamp Spaces and Quantum Information*)
- Department of Computer Science, FMPI, Comenius University, Bratislava, **Slovakia**
  (*February 22 – 23, 2018/Prof. M. Škoviera/Snarks and Finite Geometries*)
- IRTES–M3M/UTBM, Université de Bourgogne Franche-Comté, Belfort, **France**
  (*June 11 – 18, 2017/Prof. F. Holweck/Snarky Quantum Information*)
- Department of Physics and Engineering, Elizabethtown College, Elizabethtown, **U. S. A.**
  (*April 17 – May 5, 2017/Prof. W. Mark Stuckey/Extended Polar Spaces in Quantum Physics*)
- IRTES–M3M/UTBM, Université de Bourgogne Franche-Comté, Belfort, **France**
  (*March 6 – July 5, 2016/Prof. F. Holweck/Exploring the Geometry of Generalized Pauli Groups*)
- Institute of Discrete Mathematics and Geometry, Vienna University of Technology, Vienna, **Austria**
  (*March 1, 2014 – June 30, 2015/Prof. Hans Havlicek/Finite-Geometrical Aspects of Quantum Theory*)

- Laboratoire IRTES–M3M, University of Technology of Belfort-Montbéliard, Belfort, **France**
  (*September 22 – 27, 2014/Prof. F. Holweck/Geometries for Quantum Information*)
- Laboratoire IRTES–M3M, University of Technology of Belfort-Montbéliard, Belfort, **France**
  (*September 3 – October 2, 2013/Prof. F. Holweck/Segre Varieties, LGr(N,2N) and Quantum Information*)
- Mathematisches Forschungsinstitut Oberwolfach gGmbH, Oberwolfach, **Germany**
  (*February 24 – March 16, 2013/Prof. G.-M. Greuel/Geometries Behind the Black-Hole–Qubit Analogy*)
- A TSE 2012 Observing Team, Vue Apartments, Trinity Beach, Cairns, **Australia**
  (*November 10 – 16, 2012/Prof. Jay M. Pasachoff/Eclipse Solar Corona*)
- School of Mathematical and Geospatial Sciences, RMIT University, Melbourne, **Australia**
  (*November 5 – 10, 2012/Prof. Asha Rao/Combinatorial Aspects of Finite Geometries*)
- Department of Physics and Engineering, Elizabethtown College, Elizabethtown, **U. S. A.**
  (*May 7 – 12, 2011/Prof. W. Mark Stuckey/Free Cyclic Submodules and the RBW Paradigm*)
- Department of Mathematics, Colorado State University, Fort Collins, **U. S. A.**
  (*April 29, 2011/Prof. Tim Penttila/Rocky Mountain Algebraic Combinatorics Seminar*)
- Department of Mathematics, University of Colorado at Boulder, Boulder, **U. S. A.**
  (*April 26 – May 7, 2011/Prof. Richard Green/Veldkamp Spaces & Proj. Lines over Non-Associative Rings*)
- Institute FEMTO-ST/CNRS and Université de Franche-Comté, Besançon, **France**
  (*January 24 – February 3, 2011/Dr. M. Planat/Multi-Qudits and Punctured (Dual) Symplectic Polar Spaces*)
- Institute for Discrete Mathematics and Geometry, Vienna University of Technology, Vienna, **Austria**
  (*October 19 – 28, 2010/Prof. Hans Havlicek/Martinetti's Extension/Reduction of n_3's and Multi-Qubits*)
- Institute for Discrete Mathematics and Geometry, Vienna University of Technology, Vienna, **Austria**
  (*June 8 – 17, 2010/Prof. Hans Havlicek/Invariants of Segre Varieties in Binary Projective Spaces*)
- Institute for Discrete Mathematics and Geometry, Vienna University of Technology, Vienna, **Austria**
  (*November 24 – December 3, 2009/Prof. Hans Havlicek/Hughes Planes, Unitals and Black-Hole Analogy*)
- Center for Interdisciplinary Research (ZiF), Bielefeld University, Bielefeld, **Germany**
  (*July 31 – October 31, 2009/Co-Chairing the ZiF CG on "Finite Projective Ring Geometries: An Intriguing Emerging Link Between Quantum Information Theory, Black-Hole Physics, and Chemistry of Coupling"*)
- Institut de Physique Nucléaire de Lyon, Lyon–Villeurbanne, **France**
  (*June 10 – 14, 2009/Prof. M. Kibler/Groups, Discrete Geometry and Quantum Information*)
- Institute for Discrete Mathematics and Geometry, Vienna University of Technology, Vienna, **Austria**
  (*March 24 – April 2, 2009/Prof. Hans Havlicek/Group-Induced Polar Spaces, Qudits and Möbius Tetrahedra*)
- J. Heyrovský Institute of Physical Chemistry, AVČR, Prague, **Czech Republic**
  (*November 24 – 29, 2008/Dr. Petr Pracna/Near-Hexagons, Aronhold Sets, Steiner Complexes and 3-Qubits*)
- Institute FEMTO-ST, Laboratoire de Physique et Métrologie des Oscillateurs (CNRS), Besançon, **France**
  (*September 1 – 21, 2008/Dr. M. Planat/Multi-qubits, Biplanes, Hyperplanes of a Split Cayley Hexagon*)
- Institute for Discrete Mathematics and Geometry, Vienna University of Technology, Vienna, **Austria**
  (*March 10 – 14, 2008/Prof. Hans Havlicek/Projective Geometries over (Near-)Rings*)
- J. Heyrovský Institute of Physical Chemistry, AVČR, Prague, **Czech Republic**
  (*February 18 – 23, 2008/Dr. Petr Pracna/Geomeries Over (Near-)Rings and Hierarchical Universe*)
- Institute FEMTO-ST, Laboratoire de Physique et Métrologie des Oscillateurs (CNRS), Besançon, **France**
  (*November 11 – December 1, 2007/Dr. M. Planat/Free Cyclic Submodules and Quantum Theory*)
- Institute for Discrete Mathematics and Geometry, Vienna University of Technology, Vienna, **Austria**
  (*October 15 – 19, 2007/Prof. Hans Havlicek/Free Cyclic Submodules over Finite Rings*)
- J. Heyrovský Institute of Physical Chemistry, AVČR, Prague, **Czech Republic**
  (*September 17 – 29, 2007/Dr. Petr Pracna/Fine Structure of Projective Ring Lines*)
- Institute for Discrete Mathematics and Geometry, Vienna University of Technology, Vienna, **Austria**
  (*July 5, 2007/Prof. Hans Havlicek/Platonic Solids, Syntheme-Duad Geometries & Group Automorphisms*)
- Institute FEMTO-ST, Laboratoire de Physique et Métrologie des Oscillateurs (CNRS), Besançon, **France**
  (*May 6 – June 15, 2007/Dr. M. Planat/Finite Geometries, Platonic Solids and Outer Automorphisms*)
- Institute for Discrete Mathematics and Geometry, Vienna University of Technology, Vienna, **Austria**
  (*February 19 – 22, 2007/Prof. Hans Havlicek/Finite Geometries and Hilbert Spaces*)
- J. Heyrovský Institute of Physical Chemistry, AVČR, Prague, **Czech Republic**
  (*January 22 – 27, 2007/Dr. Petr Pracna/Combinatorics of Finite Geometries and Fundamental Physics*)
- Institute for Discrete Mathematics and Geometry, Vienna University of Technology, Vienna, **Austria**
  (*December 19, 2006/Prof. Hans Havlicek/Projective Lines over Jordan Systems*)

- Institute FEMTO-ST, Laboratoire de Physique et Métrologie des Oscillateurs (CNRS), Besançon, **France**
  (*November 19 – December 1, 2006/Dr. M. Planat/Geometries Behind Two-Qubits' Observables*)
- J. Heyrovský Institute of Physical Chemistry, AVČR, Prague, **Czech Republic**
  (*September 18 – 29, 2006/Dr. Petr Pracna/Projective Ring Geometries in Physics*)
- Institut de Physique Nucléaire de Lyon, Lyon–Villeurbanne, **France**
  (*April 18 – 28, 2006/Prof. M. Kibler/Projective Geometries over Finite Rings and Quantum Theory*)
- Institute FEMTO-ST, Laboratoire de Physique et Métrologie des Oscillateurs (CNRS), Besançon, **France**
  (*April 3 – June 2, 2006/Dr. M. Planat/Projective Geometries over Finite Rings and Quantum Theory*)
- Department of Philosophy of Science, University of Vienna, Vienna, **Austria**
  (*December 5 – 8, 2005/Dr. A. Batthyány/Time in Cognitive Sciences and Ring Geometries*)
- Centro Interuniversitario di Ricerca per le Neuroscienze, Naples University "Federico II", Naples, **Italy**
  (*September 25 – October 15, 2005/Prof. A. Giuditta/Time in Neurosciences*)
- Dipartimento di Matematica, Politecnico di Torino, Turin, **Italy**
  (*September 18 – 25, 2005/Dr. G. Casnati/Cremona Transformations*)
- School of Mathematics and System Engineering, Växjö University, Växjö, **Sweden**
  (*August 9 – September 1, 2005/Prof. A. Khrennikov/Geometries over Rings and Quantum Prespace*)
- Institute FEMTO-ST, Laboratoire de Physique et Métrologie des Oscillateurs (CNRS), Besançon, **France**
  (*April 30 – May 21, 2005/Dr. M. Planat/Finite Quantum Geometries*)
- J. Heyrovský Institute of Physical Chemistry, AVČR, Prague, **Czech Republic**
  (*April 10 – 12, 2005/Dr. Petr Pracna/Projective Ring Geometries in Physics*)
- Center for Interdisciplinary Research (ZiF), Bielefeld University, Bielefeld, **Germany**
  (*January 16 – 23, 2005/Chairing an International Interdisciplinary ZiF Workshop*)
- Institute FEMTO-ST, Laboratoire de Physique et Métrologie des Oscillateurs (CNRS), Besançon, **France**
  (*September 1 – December 31, 2004/Dr. M. Planat/Finite Quantum Geometries*)
- Unit of Interdisciplinary Studies, Bar-Ilan University, Ramat-Gan, **Israel**
  (*May 31 – June 15, 2004/Dr. A. Elitzur/Nature of Time*)
- Institute FEMTO-ST, Laboratoire de Physique et Métrologie des Oscillateurs (CNRS), Besançon, **France**
  (*March 16 – April 2, 2004/Dr. M. Planat/MUBs and Finite Projective Planes*)
- Department for Philosophy of Science and Social Studies of Science, University of Vienna, Vienna, **Austria**
  (*January 6 – 8, 2004/Dr. A. Batthyány/Non-Ordinary Forms of Time Dimension*)
- Faculty of Biology, Moscow State University, Moscow, **Russia**
  (*December 5 – 10, 2003/Dr. A.P. Levich/Non-Ordinary Experiences of Time and Algebraic Geometry*)
- Center for Theoretical Study, Prague, **Czech Republic**
  (*November 9 – 14, 2003/Prof. I. Havel/Time as an Intrinsic Dimension of Mind*)
- Istituto di Astrofisica Spaziale e Fisica Cosmica del CNR, Sezione di Palermo, Palermo, **Italy**
  (*September 15 – October 2, 2003/Dr. R. Buccheri/Nature of Time*)
- Laboratoire de Physique et Métrologie des Oscillateurs (CNRS), Besançon, **France**
  (*May 1 – 8, 2003/Dr. M. Planat/Algebraic Geometry and Time Behaviour of Oscillators*)
- L'École des Hautes Études en Sciences Sociales, Paris, **France**
  (*April 27 – 30, 2003/Prof. L. Boi/Geometry of Psycho(patho)logical Time*)
- Institut für Grenzgebiete der Psychologie und Psychohygiene, Freiburg, **Germany**
  (*April 6 – 26, 2003/Dr. H. Atmanspacher/Geometry of Psycho(patho)logical Time*)
- Istituto di Astrofisica Spaziale e Fisica Cosmica del CNR, Sezione di Palermo, Palermo, **Italy**
  (*December 2 – 18, 2002/Dr. R. Buccheri/Nature of Time*)
- International Solvay Institutes for Physics & Chemistry, ULB, Brussels, **Belgium**
  (*November 1, 2001 – October 31, 2002/Prof. Ilya Prigogine/Algebraic Structure of Space-Time*)
- Institut für Grenzgebiete der Psychologie und Psychohygiene, Freiburg, **Germany**
  (*August 20 – 23, 2002/Dr. H. Atmanspacher/Geometry of Psycho(patho)logical Time*)
- Istituto di Fisica Cosmica con Applicazioni all'Informatica (IFCAI), CNR, Palermo, **Italy**
  (*September 17 – October 4, 2001/Dr. R. Buccheri/Nature of Time*)
- Department of Physics, Elizabethtown College, Elizabethtown (PA), **U. S. A.**
  (*May 31 – June 24, 2001/Prof. W. M. Stuckey/Pregeometric & Cremonian View of Space-Time*)
- Konkoly Observatory, Hungarian Academy of Sciences, Budapest, **Hungary**
  (*December 6 – 20, 2000/Dr. A. Grandpierre/Scalar Waves & Projective Geometry*)
- Lawrence Berkeley National Laboratory, Berkeley (CA), **U. S. A.**
  (*August 28, 2000/Prof. T. E. Nordahl/Psychopathology of Time*)

- Physics Laboratory, Noetic Advanced Studies Institute, Oakland (CA), **U. S. A.**
  (*August 18 – September 20, 2000/Prof. R. L. Amoroso/Cremona Transformations, Weighted Projective Spaces and the Nature of Time*)
- Department of Physics, Elizabethtown College, Elizabethtown (PA), **U. S. A.**
  (*March 11 – June 3, 1999/Prof. W. M. Stuckey/Fine Structure of Psycho(patho)logical Space-Times*)
- Department of Mathematics, Iowa State University, Ames, **U. S. A.**
  (*October 27 – November 14, 1998/Prof. J. D. H. Smith/Geometry of Psychological Space-Times*)
- Department of Physics, Elizabethtown College, Elizabethtown (PA), **U. S. A.**
  (*October 20 – 24, 1998/Prof. W. M. Stuckey/Group-Algebraic Structure of Space-Time*)
- Istituto di Fisica Cosmica con Applicazioni all' Informatica (IFCAI), CNR, Palermo, **Italy**
  (*February 25 – June 25, 1998/Dr. R. Buccheri/Psychopathology of Time and Space & Algebraic Geometry*)
- International Institute of Theoretical and Applied Physics, Iowa State University, Ames, **U. S. A.**
  (*May 16 – July 5, 1997/Prof. J. D. H. Smith/Arrow of Time and Web Geometry*)
- Department of Mathematics, The University of Arizona, Tucson, **U. S. A.**
  (*April 15 – May 15, 1997/Prof. C. L. DeVito/Arrow of Time and Pencils of Conics*)
- Astrophysikalisches Institut Potsdam, Potsdam, **Germany**
  (*February 10 – 25, 1997/Prof. D.-E. Liebscher/Arrow of Time: Physics vs Projective Geometry*)
- Consiglio Nazionale delle Ricerche, Area della Ricercha di Palermo, Palermo, **Italy**
  (*November 24 – 27, 1996/Dr. R. Buccheri/Arrow of Time and Pencil–Generated Spacetimes*)
- Universitá degli Studi di "Roma Tre," Rome, **Italy**
  (*November 7 – 23, 1996/Dr. M. Storini/Solar Physics*)
- Tokyo Institute of Technology, Tokyo, **Japan**
  (*May 21, 1996/Prof. A. Hosoya/Arrow of Time*)
- Yukawa Institute for Theoretical Physics, Kyoto University, Kyoto, **Japan**
  (*May 8 – 11, 1996/Prof. H. Kodama/Arrow of Time*)
- Cosmology and Gravitation Laboratory, Department of Physics, Nagoya University, Nagoya, **Japan**
  (*April 24 – 27, 1996/Prof. A. Tomimatsu/Arrow of Time*)
- Research Center for the Early Universe, The University of Tokyo, Tokyo, **Japan**
  (*March 21 – May 30, 1996/Prof. K. Sato/Arrow of Time and Galois Geometries*)
- Astronomical Institute of the Academy of Sciences of the Czech Republic, Ondřejov, **Czech Republic**
  (*February 1 – 29, 1996/Dr. M. Karlický/Arrow of Time and Pencils of Conics*)
- Cosmic Ray Section, IFSI/CNR, La Sapienza University, Rome, **Italy**
  (*October 3 – 19, 1994/Dr. M. Storini/Solar Physics*)
- Mathematical Institute, The University of St. Andrews, St. Andrews, **U. K.**
  (*September 1 – October 6, 1990/Prof. E. R. Priest/Solar Physics*)

INVITED LECTURES
(*CONFERENCE/SITE/DATES*)
- Taxonomy of Three-Qubit Doilies
  (*8-th European Congress of Mathematics (Configurations), Portorož (Slovenia), June 23, 2021*)
- Doily – A Gem of the Quantum Universe
  (*9-th Slovenian International Conference on Graph Theory, Bled (Slovenia), June 28, 2019*)
- Finite Geometries: Other Notable Examples
  (*An Algebraic Graph Theory Seminar, Comenius University, Bratislava (Slovakia), February 23, 2018*)
- Finite Geometries Relevant for Quantum Information
  (*A Graph Theory Seminar, Comenius University, Bratislava (Slovakia), February 22, 2018*)
- Polar Spaces and Generalized Polygons Shaping Quantum Information
  (*55-th Summer School on Algebra and Ordered Sets, High Tatras (Slovakia), September 7, 2017*)
- A Polygonal Structure of Geometric Hyperplanes of the Split Cayley Hexagon of Order Two
  (*Finite-Geometrical Aspects of Quantum Theory, Vienna (Austria), February 23, 2015*)
- From Real Cayley-Dickson Algebras to Combinatorial Grassmannians
  (*Geometries for Quantum Information, Belfort (France), September 25, 2014*)
- Finite Geometries with a Quantum Physical Flavour
  (*14th Conference of Cassovian Mathematicians/Herl'any (Slovakia)/April 5, 2013*)
- The Veldkamp Space of Some Distinguished Finite Geometries
  (*RMACS/Colorado State University, Fort Collins (U. S. A.)/April 29, 2011*)

- Projective Lines over Finite Rings
  (*Kempner Colloquium/University of Colorado at Boulder, Boulder (U. S. A.)/April 28, 2011*)
- From Pauli Groups to Stringy Black Holes: Part II - Generalized Polygons, Geometric Hyperplanes and Some Distinguished Graphs
  (*ZiF Cooperation Group on Finite Projective Ring Geometries/Bielefeld (Germany)/August 28, 2009*)
- From Pauli Groups to Stringy Black Holes: Part I – Projective (Near)Ring Lines
  (*ZiF Cooperation Group on Finite Projective Ring Geometries/Bielefeld (Germany)/August 27, 2009*)
- GQ(2,4), Split Cayley Hexagon of Order Two and Black Hole Entropy Formulas
  (*Groups, Discrete Geometry and Quantum Information/Lyon (France)/June 11, 2009*)
- A Fine Structure of Finite Projective Ring Lines (with H. Havlicek, M. Planat and P. Pracna)
  (*Prolegomena for Quantum Computing/Besançon (France)/November 21 – 22, 2007*)
- The N-Qudit Fabric: Pauli Graph and Finite Geometries (with M. Planat)
  (*10th ICSSUR/Bradford (U.K.)/March 31 – April 4, 2007*)
- A Geometrical Chart of Altered Temporality (and Spatiality)
  (*Endophysics, Time, Quantum and the Subjective/Bielefeld (Germany)/January 17–22, 2005*)
- The Psychopathology of Time and its Algebraic Geometrical Patterns
  (*Russian Interdisciplinary Temporology Seminar/Moscow (Russia)/December 9, 2003*)
- Psychological Time: Its Pathology and Geometry
  (*Le Temps Multiple/Paris (France)/April 30, 2003*)
- Geometry of Psychological Time: 'Altered' States of Consciousness and Philosophy of Endo-Physical Paradigm (with R. Buccheri)
  (*Medicine & Philosophy in the Ancient Greek Tradition & Our Times/Pyrgos (Greece)/August 4–10, 2002*)
- Geometry of Time and Dimensionality of Space
  (*The Nature of Time: Geometry, Physics and Perception (NATO ARW)/Tatranská Lomnica (Slovak Republic)/May 21–24, 2002*)
- Geometry of Psychological Time
  (*The Direction of Time: The Role of Reversibility/Irreversibility in the Study of Nature/Bielefeld (Germany)/January 14–18, 2002*)
- Homaloidal Webs, Space Cremona Transformations and the Dimensionality and Signature of Macro-Spacetime
  (*Gravitation and Cosmology: From the Hubble Radius to the Planck Scale/Berkeley/August 21–25, 2000*)
- Algebraic Geometry: A Tool for Resolving the Enigma of Time?
  (*Studies on the Structure of Time: From Physics to Psycho(patho)logy/Palermo (Italy)/November 23–24, 1999*)
- Conics and the Many Facets of Time
  (*Fundamental Principles of Cosmology: The Foundations of a Conscious Universe/Fairfax (U. S. A.)/October 14–16, 1999*)
- On Temporal Dimensions Generated by Pencils of Conics
  (*Modern Mathematical Models of Time and Their Applications/Tucson (U.S.A.)/April 11–13, 1996*)

AWARDS & FELLOWSHIPS

- National Scholarship Programme, SAIA, Slovak Republic: Host Scientist, 2018
  Scholarship Holder: Edyta Bartnicka (Olsztyn, Poland)
- A PHC Štefánik Project "Finite Geometries Shaping Quantum Information" (SK-FR-2017-0002), 2018–2019
  Collaborators: F. Holweck, J. Boulmier and H. Jaffali (UBFC/UTBM, Belfort, France)
- A French CR Project "Exploring the Geometry of Generalized Pauli Groups" (RECH-MOB15-000007), 2016
  Collaborator: F. Holweck (UTBM, Belfort, France)
- An Austrian FWF Project "Finite-Geometrical Aspects of Quantum Theory" (M1564–N27), 2014–2015
  Collaborator: H. Havlicek (Vienna University of Technology, Vienna, Austria)
- A gold-plated medal for outstanding research awarded by the President of the Slovak Academy of Sciences; award made on July 3, 2013, to mark the 60th anniversary of the Slovak Academy of Sciences
- An Invited Visiting Professor Position, 2013
  Laboratory of IRTES-M3M, University of Technology of Belfort-Montbéliard, Belfort, France
- An MFO 'Research in Pairs' on "Finite Geometries Behind the Black-Hole-Qubit Correspondence", 2013
  Mathematisches Forschungsinstitut Oberwolfach, Leibniz-Gemeinschaft, Oberwolfach-Walke, Germany

- A figure from my joint paper published in *Journal of Physics A: Mathematical and Theoretical* **45** (2012), Art. No. 295304, was selected for and appeared on the cover page of the corresponding issue of the journal
- A Research Grant of the National Geographic Society "Multifaceted Observations of the Solar Corona", 2012
  Collaborators: V. Rušin (Tatranská Lomnica, Slovakia — Head) and P. Rapavý (Rimavská Sobota, Slovakia)
- National Scholarship Programme, SAIA, Slovak Republic: Host Scientist, 2012
  Scholarship Holder: Petr Pracna (Prague, Czech Republic)
- My team was ranked as "outstanding" within the Slovak Academy of Sciences in the latest (summer of 2011) evaluation poll conducted by the ARRA (Academic Ranking and Rating Agency, Slovakia)
- The Burnett C. Meyer Visiting Professor Fellowship, 2011
  Department of Mathematics, University of Colorado at Boulder, Boulder, U. S. A.
- National Scholarship Programme, SAIA, Slovak Republic: Host Scientist, 2011
  Scholarship Holder: Joanne Hall (Melbourne, Australia)
- A Slovak–Austrian Science and Technology Cooperation Research Project "Finite (Ring) Geometries: Where Qudits Meet Black Holes" (SK-AT-0001-08): Project Partner, 2009–2010
  Collaborators: H. Havlicek and B. Odehnal (Vienna, Austria)
- A ZiF Cooperation Group "Finite Projective Ring Geometries: An Intriguing Emerging Link Between Quantum Information Theory, Black-Hole Physics and Chemistry of Coupling": Co-Organizer, 2009
  Collaborators: A. Blunck (Hamburg), H. Havlicek (Vienna; Principal Organizer), P. Lévay (Budapest), M. Planat (Besançon) and P. Pracna (Prague)
- An ⟨Action Austria–Slovakia⟩ Research Project "Finite Geometries Behind Hilbert Spaces" (No. 58s2): Project Partner, 2007–2008
  Collaborator: H. Havlicek (Vienna, Austria)
- A CNRS-SAV Project "Projective and Related Ring Geometries for Quantum Information" Project Cooordinator, 2007–2008
  Collaborators: M. Planat and A.-C. Baboin (Besançon), M. Kibler and O. Albouy (Lyon)
- An ECO-NET Project "Geometries Over Finite Rings and the Properties of Mutually Unbiased Bases" (No. 12651NJ): Team Member, 2006–2007
  Collaborators: M. Planat, M. Kibler, O. Albouy, A.-C. Baboin (France), and P. Pracna (Czech Republic)
- A ZiF IRW "Endophysics, Time, Quantum and the Subjective" ((AG)205-2/2005): Principal Organizer
  January 17–22, 2005, Bielefeld, Germany
- A "Séjour Scientifique de Haut Niveau" Fellowship in Theoretical Physics (No. 41/41/231428), 2004
  Laboratoire de Physique et Métrologie des Oscillateurs, Besançon, France
- A NATO ARW "The Nature of Time: Geometry, Physics & Perception" (PST.ARW.978142): Co-Director
  May 21–24, 2002, Tatranská Lomnica, Slovak Republic
- A NATO Advanced Research Fellowship in Theoretical Physics, 2001–2002
  International Solvay Institutes for Physics & Chemistry, Brussels, Belgium
- A Joint CNR-SAV Research Project in Physics, 2001–2003
  Collaborator: R. Buccheri, IFCAI, Palermo, Italy
- A NATO CLG "Structure of Time & Quantum Computing" (PST.CLG.967850): PC Coordinator, 2000–2002
  Collaborators: R. Buccheri, V. Di Gesù (Italy), G. Jaroszkiewicz (U.K.), W. M. Stuckey (U.S.A.)
- A NATO/CNR Senior Guest Fellowship in Physics, 1998
  Institute of Cosmic Physics & Applications, Consiglio Nazionale delle Ricerche, Palermo, Italy
- An IITAP/UNESCO Visiting Scientist Fellowship, 1997
  International Institute of Theoretical & Applied Physics, Iowa State University, Ames, U.S.A.
- A JSPS Fellowship for Priority-Area Research in Japan, 1996
  Research Center for the Early Universe, The University of Tokyo, Tokyo, Japan
- A Chancellor's Award for Excellent Study Results, Charles University, Prague, 1983

MEMBERSHIP

a) Societies
- European Mathematical Society/Zentralblatt MATH (since 2010)
- American Mathematical Society/Mathematical Reviews/MathSciNet (since 2009)
- American Institute of Physics/AIP UniPHY (2009–2012)
- Center for Frontier Sciences, Temple University (since 2005)

- International Symmetry Association (since 2003)
- California Alumni Association (2000/2001)
- International Society for the Study of Time (1997–2002)
- International Astronomical Union (since 1994)
- Slovak Astronomical Society (since 1993)

b) Editorial Boards
- Frontier Perspectives (since 2005)
- Symmetry: Culture and Science (Advisory Board Member; since 2003)
- ISRN Geometry (Hindawi; since 2011)

c) Scientific Organizing Committees(Conference/Site/Dates)
- Symmetry Festival 2016/Vienna (Austria)/July 18–22, 2016
- Finite-Geometrical Aspects of Quantum Theory/Vienna (Austria)/February 23–27, 2015
- Symmetry Festival 2013/Delft (The Netherlands)/August 2–7, 2013
- Going Beyond Metric: Black Holes, Non-Locality and Cognition/Tatranská Lomnica (Slovak Republic)/ October 3–7, 2010 (Chair)
- Symmetry Festival: Symmetry in the History of Science, Art, Technology and Medicine/Budapest (Hungary)/July 31 – August 4, 2009
- Astronomy and Civilization/Budapest (Hungary)/August 10–13, 2009
- Finite Projective Geometries in Quantum Theory/Tatranská Lomnica (Slovak Republic)/ August 1–4, 2007 (Chair)
- Symmetry Festival: Symmetry in Art and Science Education/Budapest (Hungary)/August 12–18, 2006
- Endophysics, Time, Quantum and the Subjective/Bielefeld (Germany)/January 17–22, 2005 (Chair)
- Symmetry Festival: Where Science Meets Art/Budapest (Hungary)/August 16–22, 2003
- The Nature of Time: Geometry, Physics and Perception (NATO ARW)/Tatranská Lomnica (Slovak Republic)/May 21–24, 2002 (Co-Director)
- Studies on the Structure of Time: From Physics to Psycho(patho)logy/Palermo (Italy)/ November 23–24, 1999 (Co-Director)

REFEREE/REVIEWER

a) Journals
- Annals of Physics
- Astrophysics and Space Science
- Chaos, Solitons and Fractals
- Cogent Mathematics
- Entropy
- European Physical Journal C
- European Physical Journal D
- Foundations of Physics
- Foundations of Science
- Graphs and Combinatorics
- ISRN Geometry
- Indagationes Mathematicae
- Indian Journal of Physics
- Journal on Emerging and Selected Topics in Circuits and Systems
- Journal of Mathematical Physics
- Journal of Physics A: Mathematical and Theoretical
- Rendiconti dell'Istituto di Matematica dell'Università di Trieste
- Results in Mathematics
- Quantum Information Processing
- Quantum Studies: Mathematics and Foundations
- Seminaire Lotharingien de Combinatoire
- Signal Processing
- Special Matrices

b) Foundations/Grant Agencies

- European Science Foundation (Pool of Reviewers; by invitation)
- European Science Foundation (College of Expert Reviewers; by invitation)
- Human Frontier Science Program
- Grant Agency of the Academy of Sciences of the Czech Republic
- National Geographic Society
- Research Foundation Flanders (FWO)

c) Ph.D./Habiliation Theses

- Diego Meschini (2008, University of Jyväskylä, Jyväskylä, Finland)
- Olivier Albouy (2009, Université de Lyon/Institut de Physique Nucléaire de Lyon, F-69622, Lyon, France)
- Anne-Céline Baboin (2011, Université de Franche-Comté/Institut FEMTO-ST, F-25044 Besançon, France)
- Joanne L. Hall (2011, RMIT University, AU-3001 Melbourne, Australia)
- Frédéric Holweck (2019, University Bourgogne Franche-Comté, F-90010 Belfort, France)

d) Databases

- zbMATH/Zentralblatt MATH (since 2010; by invitation)
- Mathematical Reviews/MathSciNet (since 2009; by invitation)

e) Publishers

- Springer

RECENT BOOKS EDITED

- (with R. Buccheri and A.C. Elitzur): "Endophysics, Time, Quantum and the Subjective"
  World Scientific Publishing Co., Singapore, 2005 (ISBN 981-256-509-4 (hardcover))
- (with R. Buccheri and W. M. Stuckey): "The Nature of Time: Geometry, Physics & Perception"
  NATO Science Series II: Volume 95, Kluwer Academic Publishers, Dordrecht–Boston–London, 2003
  (ISBN 1-4020-1200-4 (hardcover))
- (with R. Buccheri and V. Di Gesù): "Studies on the Structure of Time: From Physics to Psycho(patho)logy"
  Kluwer Academic/Plenum Publishers, New York, 2000 (ISBN 0-306-46439-X (hardcover))

INTERVIEWS

- April 6, 2016: briefly interviewed by the HCERES committee concerning the academic evaluation of the
  University of Technology of Belfort-Montbeliard, Belfort, France
- October 14, 2009: co-interviewed by Manuela Lenzen from the Center for Interdisciplinary Research (ZiF),
  University of Bielefeld, Bielefeld (Germany);
  Finite Projective Ring Geometries (in German) appeared in the 1/2010 issue of the "ZiF Mitteilungen"
- February 23, 2007: interviewed by Sam Taplin from the TV company Pioneer Productions (U.K.),
  for a science documentary on sunspots for the National Geographic Channel
- October 7, 2005: interviewed by Amedeo Pisanti from COINOR, Naples University, Naples (Italy);
  La Mente, un Universo Classificabile appeared on-line on October 11, 2005, on
  http://www.news.unina.it/dettagli_area.jsp?area=IN%20ATENEO&ID=2019
- October 5, 2005: interviewed by Vincenzo Napolano for the "Il Denaro" newspaper (Italy);
  Geometria e Algebra della Mente appeared in the October 8, 2005, issue of the newspaper, page 69, and is
  also available on http://www.denaro.it/go/a/_articolo.qws?recID=216221&kwds=saniga&mod=AD
- June 30, 2005: interviewed by Andy Pag for the BBC Television (U.K.), a science programme on
  the perception/experience of time
- February 9, 2004: interviewed by Ian Simmons for the "Nth Position" magazine (U.K.);
  King of Infinite Space appeared on April 17, 2004, and is available on http://www.nthposition.com/-kingofinfinite.php
- October 29, 2003: interviewed by Stephen Battersby for the "New Scientist" magazine (U.K.);
  Einstein on Acid appeared in the December 20/27, 2003 – January 3, 2004 issue of the magazine, pp. 40–43,
  and is also available on http://www.newscientist.com/article.ns?id=mg18024265.400
- August 28, 2003: interviewed by Paul Bernstein for "Vital Signs," the IANDS newsletter (U.S.A.);
  Physicist Uses NDEs to Clarify the Nature of Time appeared in the Vol. 22, No. 1 issue of the newsletter
- June 24, 2002: interviewed by Sanjida O'Connell for "The Times" (U.K.);
  When Time Stands Still appeared in the July 8, 2002, issue of the newspaper and is also available on
  http://www.timesonline.co.uk/article/0,,7-349827,00.html

- May 17, 2002: interviewed by Mark. K. Anderson for the "Wired News" (U.S.A.);
  Anybody Really Know What Time Is? appeared on May 23, 2002, and is available on
  http://www.wired.com/news/technology/0,1282,52703,00.html
- November 23, 1999: an interview given for Italian newspaper "Giornale di Sicilia" concerning an international interdisciplinary workshop "Studies on the Structure of Time: from Physics to Psycho(patho)logy," held in Palermo, November 23–24, 1999
- May 8, 1998: an interview given for a Vatican TV company "SAT 2000" concerning my talk at the conference "Scienza e Trascendenza," Rome, May 8, 1998

MY WORK IN ART EXHIBITIONS

(AUTHOR/DATES/LOCATION)

- Matter, Space, Motion
  (Mark Fell/August 7 – September 19, 2010/HIVE Gallery, Barnsley, U. K.)
- Chiros 2008
  (Melanie Crean/December 3, 2008 – January 17, 2009/Longwood Art Gallery, New York, U. S. A.)

LANGUAGES

- English: fluent
  - *First Certificate in English* (Cambridge University, June 1994)
  - *Certificate in Advanced English* (Cambridge University, December 1995)
- Russian: spoken – good, written – very good
- German, French & Italian: written – limited working knowledge

LIST OF PUBLICATIONS

Available as a separate document

LIST OF TALKS/LECTURES/POSTERS

Available as a separate document