Pablo Miguel Jacovkis

Argentine citizen, born in Buenos Aires in 1945, married, three daughters. E-mail: pablo.jacovkis@gmail.com.

Licenciado in mathematics, with honors (1967).

Ph. D. in mathematics (1988), University of Buenos Aires. Thesis subject: Numerical models for fluvial networks.

Scholarship from the Consiglio Nazionale delle Ricerche, Italy, Scuola Normale Superiore, Pise (1969).

ACADEMIC RECORD

Academic positions:
Student assistant (1966), teaching assistant (1970-72), Department of Mathematics, School of Sciences, University of Buenos Aires.
Instructor, Department of Mathematics, School of Sciences, University of La Plata (1972-75).
Assistant professor, Department of Computer Science, School of Sciences, Central University of Venezuela, Caracas (1977-78).
Professor and Head of the Department of Mathematics, School of Engineering, University of Buenos Aires (1984-88).
Professor, Latin American School of Informatics, ESLAI (1987).
Associate professor, Department of Computer Science, School of Sciences, University of Buenos Aires (1988-94).
Director, Instituto de Cálculo (Institute of Applied Mathematics), School of Sciences, University of Buenos Aires (1988-98).
Professor, Department of Computer Science, School of Sciences, University of Buenos Aires (1994-2012).
Academic Secretary, School of Sciences, University of Buenos Aires (1994-96).
Professor, Department of Mathematics, School of Engineering, University of Buenos Aires (1995-2012).
Dean, School of Sciences, University of Buenos Aires (1998-2006).
President, National Council for Research (CONICET) (2000).
Member of the Board, National Agency for Scientific and Technological Enhancement (2009 - 2013).
Professor emeritus, University of Buenos Aires (2012-).
Secretary (Vice-President) for Research and Development, National University of Tres de Febrero (2012 -).
Director, Interdisciplinary Center of Advanced Studies, National University of Tres de Febrero (2012-).

Advisor of students, post-docs and researchers:
I advised two undergraduate students, ten graduate students, three postdoctoral fellows and five CONICET assistant researchers. I am currently advising a CONICET assistant researcher and a CONICET graduate student.

Thesis advisor:
Advisor of sixteen "licenciatura" dissertations (in computer science, mathematics and physics). Co-advisor of two "licenciatura" dissertations (one in computer sciences and one in atmospheric sciences).
Advisor of a M. Sc. thesis (Gabriela A. Steren, numerical simulation and control, School of Engineering, University of Buenos Aires, co-advisor: Guillermo D. Benito, Eng.)
Advisor of eight Ph. D. theses: Gabriela Savioli, 1996, mathematics, University of Buenos Aires (co-advisor: Mirta Susana Bidner, Eng.); Gerardo Riccardi, 2001, engineering, University of Córdoba; Walter Legnani, 2001, physics, University of Buenos Aires (co-advisor: Dr. Pablo O. Canziani); Ariel Fraidenraich, 2004, engineering, University of Buenos Aires (co-advisor: Dr. Fernando Roberto de Andrade Lima); Javier Quinteros, 2008, computer science, University of Buenos Aires (advised also by Dr. Víctor A. Ramos); Alejandro Daniel Otero, 2008, engineering (advised also by Dr. Fernando L. Ponta); Erica Yania Sánchez, 2012, chemistry, University of La Plata (co-advisor: Dr. Andrés Porta), Alejandro Dante Acquesta, 2014, informatics engineering, Technological Institute of Buenos Aires (ITBA).
Co-advisor of one Ph. D. thesis: Fernando L Ponta, 1999, engineering, University of Buenos Aires (advisor: Dr. Gautam S. Dutt);

Grants: I received grants from the University of Buenos Aires, from CONICET, from the Organization of American States, from the Sloan Foundation, jointly from CONICET and National Science Foundation, from the National Agency for Promotion of Science and Technology (FONCyT) and from the Antorchas Foundation.

Member of the following societies: Argentine Association for Computational Mechanics (AMCA - founding member), Argentine Mathematical Union (UMA), American Mathematical Society (AMS), Society for Industrial and Applied Mathematics (SIAM), Argentine Scientific Society (SCA), Argentine Association of Applied, Computational and Industrial Mathematics (ASAMACI - founding member), Argentine Center of Meteorologists (honorary member).

PROFESSIONAL ACTIVITIES

As a private consultant since 1970, and member of the Board of the firm Estudio Gradowczyk y Asociados S. A. T. from 1973 to 1998, I directed the programming, implementation, calibration, validation and numerical experiments of many mathematical models, such as:

One-dimensional hydrodynamic model of the Limay river downstream of the Alicurá dam;
Hydrodynamic model of the Baradero river - tributary of the Paraná river - with a complex deltaic structure;
Optimization model of the design of an aqueduct in the Santa Fe province between Granadero Baigorria and Rufino;
Model of the Salto Grande dam operation;
Model of discharge release through spillways and channels for the design of the Uruguay river closure during the construction of the Salto Grande dam;
Model of closure of the Colorado river during the construction of the Casa de Piedra dam;
Model of kinematic wave front to study irrigation and seepage in furrows for a sugar mill in Jujuy;
Hydrodynamic model, with deltaic structure, of the Paraná river delta, to analyze alternative cuts of flood beds and changes in the radii of curvature of the delta waterways to improve navigation;
Hydrodynamic model of the Uruguay river, with arborescent structure, upstream and downstream the Salto Grande dam, to analyze wave propagation, maximum admissible stage fluctuations, catastrophic hypotheses, backwaters, contributions of tributary basins, influence of other dams and navigation problems;
Hydrologic-hydrodynamic model to forecast Uruguay river floods, used in the dam operation;
Hydrodynamic model with complex deltaic structure, hydrodynamic model with arborescent structure and hydrodynamic model with a mobile bed of the Limay river, to study the hydraulic performance during the construction of the Pichi Picún Leufú and Michihuao dams:
Hydrologic-hydrodynamic model of the middle and lower Amazon river and its basin;
One-dimensional hydrodynamic model and hydrodynamic model with a mobile bed and particle transport, settling and resuspension, to analyze several alternatives of design of the Escobar fluvial harbour;
Linear, integer and separable optimization models and simulation model of a system of multiobjective water planning (reservoirs, irrigation works, hydropower stations, channels) in the Negro river basin;
Technical and economic simulation model of feed-lots performance;
Statistical, reservoir operation and hydrological models of the Aluminé lake and river;
Mathematical models to compute the hydraulic performance and estimation of pier scour for different alternatives of the Yacyretá-Resistencia 500 KV electrical interconnection system;
Flood and drainage model of Río de la Plata coastal areas linked by culverts and separated by embankments;
Environmental pollution model of two treatment plants for sewage projected in artificial islands in the Río de la Plata;
Flood and drainage model of a filling area near the coast of the Río de la Plata;
Reservoir operation models for the Cabra Corral, Ullum, Escaba and El Cadillal dams;
Dredging computation model and hydrological forecast model for the Santa Fe - Atlantic Ocean waterway dredging works;
Combined hydrologic and reservoir operation model for the Futaleufú reservoir;
Combined operation model of the Los Caracoles, Piedra Negra and Ullum reservoirs;
Hydrologic - hydraulic model and bridge scour model on Perico and Los Alisos rivers in Jujuy.

I transferred to the corresponding clients several models, including in the transference the documentation, theoretical fundamentals, user's manual and training of the personnel. I implemented the following models, already mentioned, in the computers of the clients: hydrologic-hydrodynamic model of the middle and lower Amazon river (in Belem, Pará, Brazil), flood forecast model of the Uruguay river (in the Salto Grande dam), two hydrodynamic models downstream the Pichi Picún Leufú dam (in Cipoletti, Río Negro), combined hydrologic and reservoir operation model (in the Futaleufú dam, Chubut).

From 2008 to 2010 I was an advisor of SIM&TEC S. A., a consulting firm in computational mechanics. I am responsible of the parallelization of the METFOR finite element model for TENARIS S. A.

From 2009 to 2012 I was an advisor of the Presidency of the National University of Tres de Febrero.

At the Interdisciplinary Center of Advanced Studies of the National University of Tres de Febrero I was in charge of the following studies for the Secretariat of University Policy:

- Current and potential technological capacity of the National University of Tres de Febrero (2013-2014).
- Understanding of social and political actors on advantages and disadvantages of production of non-conventional hydrocarbons in Neuquén Province (2014-2015)
- Multidisciplinary vision of the strategic planning of rail transport in Argentina (2015-2016).

At that Center I also coordinated the following study:

- The new spaces of open innovation and use of ICTs, embedded systems, digital manufacture and robotics in the wood and furniture industries in Tres de Febrero and San Martín counties (2016-2017).

OTHER ACTIVITIES

Participant in many scientific meetings in Argentina and abroad. In particular, invited speaker and/or Session organizer and/or member of Scientific Committee in the following:

Workshop on Mathematics in Industry, Mar del Plata, 1988;

X Latin American School of Mathematics, Tanti (Córdoba), 1991;

XII Iberian Latin American Congress on Computational Methods in Engineering - III Argentine Congress on Computational Mechanics, Paraná, 1991;

XI National Seminar of Mathematics, Vaquerías, Córdoba, 1992;

II Congress "Dr. Antonio A. R. Monteiro", Bahía Blanca, 1993;

Southern Hemisphere Paleo- and Neoclimates Mendoza Workshop, Mendoza, 1993;

IV Argentinean Congress on Computational Mechanics - MECOM'94, Mar del Plata, 1994;

VI International Colloquium of Differential Equations, Plovdiv, Bulgaria, 1995;

First Latin American Colloquium on Mathematics applied to Industry and Medicine, Buenos Aires, 1995;

Winter School of Applied Mathematics and Computer Science, Federal University of Río Grande do Sul, Porto Alegre, 1996;

School of Mathematics applied to Industry, Mar del Plata, 1996;

IV World Congress of Computational Mechanics, Buenos Aires, 1998;

XII Argentinean Congress of Bioengineering, Buenos Aires, 1999.

First Meeting of Professors of Mathematics at the Cuyo National University, Mendoza, 2000.

Workshop organized by the Secretariat for Science, Technology and Innovation "Towards the construction of public policies on professional migrations", Buenos Aires, 2001.

Preliminary Meeting, Montevideo, and Organizing Meeting of Deans of Schools of Science of Latin America, Buenos Aires, 2002. Member of the Organizing Committee.

Third Meeting of Principal Investigators of the Project IAI CRN-055 - PROSUR, Mar del Plata, 2002.

First South-American Congress on Computational Mechanics - III Brazilian Congress on Computational Mechanics - VII Argentinean Congress on Computational Mechanics, Paraná, 2002.

Meeting on Science and Technology organized by the Department of Science and Technology of the National University of La Pampa, Santa Rosa, La Pampa, 2002.

First Meeting of Deans of Schools of Science of Latin America, Mexico, DF, 2003.

Fourth Meeting of Principal Investigators of the Project IAI CRN-055 - PROSUR, Cruceiro, SP, Brazil, 2003.

VI National Congress of Political Science, Rosario, 2003.

Workshop on Computational Engineering, Instituto Tecnológico de Buenos Aires, Buenos Aires, 2004.

I Workshop on Differential Equations, Optimization and Numerical Analysis, Rosario, Universidad Austral, 2004.

V Pan American Workshop on Applied and Computational Mathematics, Tegucigalpa (Honduras), 2004.

Workshop on Modeling and Operation of Hydrocarbon Networks, GIMOR 2004, Buenos Aires, 2004.

XIV Congress on Numerical Methods and their Applications (ENIEF 2004), Bariloche, 2004.

II Workshop on Differential Equations, Optimization and Numerical Analysis, FAMAF, Córdoba, 2005.

International Conference on Approximation Methods for Design and Control, UTN, Buenos Aires, 2005.

I Czech-Argentine Biennale Workshop "e-Golems": Interdisciplinary aspects of human-machine co-existence and co-operation, Prague, June, 2005.

TERA'05, Third International Workshop on (semi)numerical techniques in polynomial equation solving, in honor of Joos Heintz's 60th birthday, Buenos Aires, 2005.

XV Congress on Numerical Methods and their Applications (ENIEF 2006), Santa Fe, 2006.

II Argentinean Congress of Researchers in Marketing and Public Opinion, Buenos Aires, April 10 and 11, 2007.

III Meeting on Science, Technology and Society, Montevideo, 2007. Argentinean coordinator of the Applied Mathematics area.

Seminar "Fall and Reconstruction of Argentinean Science" (Secretariat for Science, Technology and Innovation), 2007.

Annual Meeting of the Argentine Mathematical Union: LVII Meeting of Scientific Communications. Córdoba, 2007.

II Czech-Argentine Biennale Workshop "e-Golems": Information and Communication Society - Emerging Technologies and their Application to Art and Society, Buenos Aires, 2007.

XVI Congress on Numerical Methods and their Applications (ENIEF 2007); I Congress of Applied, Computational and Industrial Mathematics (MACI 2007); Córdoba, 2007.

Annual Meeting of the Argentine Mathematical Union: LVIII Meeting of Scientific Communications. Mendoza, 2008.

Annual Meeting of AR-SIAM (Argentina Section of the Society for Industrial and Applied Mathematics) and First Meeting of ASAMACI (Argentine Association of Applied, Computational and Industrial Mathematics), Santa Fe, 2008.

Winter School of Applied Mathematics, EIMA09, Santa Maria, Rio Grande do Sul, Brasil, 2009.

XVIII Congress on Numerical Methods and their Applications (ENIEF 2009), Tandil, November 2009.

II Congress on Applied, Computational and Industrial Mathematics (II MACI), Rosario, December 2009.

III Iberian-American Congress on Philosophy of Science and Technology, Buenos Aires, September 2010.

IV National Meeting of Literature and Cultural History, Ushuaia, September 2010.

IX Argentinean Congress on Computational Mechanics – II South American Congress on Computational Mechanics – XXXI Iberian-Latin American Congress on Computational Methods in Engineering (MECOM 2010 – CILAMCE 2010). Session organizer.

IV Seminar on Science Policy: Science between Democracy and Dictatorship, La Laguna, Tenerife, 2011. Invited speaker.

I Paraguayan Congress of Pure and Applied Mathematics, Asunción, Paraguay, 2011.

Skunk Talks – Workshop with Conferences on Financing of Research and Transference of Software Technologies in Argentina: Past, Present and Perspectives. Tandil, 2011.

X Argentinean Congress on Computational Mechanics (MECOM 2012), Session organizer and invited speaker. Salta, 2012.

VII Italian-Latin American Congress on Applied and Industrial Mathematics (VII ITLA), Rosario, 2012.

Skunk Talks – Workshop on Financing of Research and Technology Transfer of Software in Argentina: Looking at 2020. Tandil, 2014.

Iberian-American Congress on Science, Technology, Innovation and Education, Buenos Aires, 2014.

V MACI (V Congress on Applied, Computational and Industrial Mathematics), Tandil, May 2015.

Interdisciplinary Regional Meeting on Critical Latin American Thought, Córdoba, 2015.

First Annual Meeting of ICT Latin American and Caribbean Experts, part of the International ICT Congress ANDICOM 30, Cartagena de Indias, Colombia, 2015. Panelist.

First Latin American Meeting of Scientific Philosophy. Buenos Aires, September 23-26, 2015.

IV Simposium on History of Informatics in Latin America and Caribbean, Valparaíso, Chile, October 11-12, 2016.

VI MACI (VI Congress on Applied, Computational and Industrial Mathematics), Comodoro Rivadavia, 2-5 May 2017.

II Argentine Congress of Transport, Mendoza, 14 and 15 September, 2017.

Organizer of the Second National School of Applied Mathematics, on Fluid Dynamics, in the Department of Mathematics of the School of Engineering, University of Buenos Aires, December 1987, and of the Schools of Applied Mathematics of the University of Buenos Aires and of the "Montevideo Group" Association of Universities in 1993 and 1997.

Jury to select professors in the Universities of Buenos Aires, Rosario, Córdoba, Centro de la Provincia de Buenos Aires (Olavarría and Tandil), Sur (Bahía Blanca), Littoral (Santa Fe), General Sarmiento (San Miguel), San Martín,), Río Negro (General Roca), University of the Republic (Montevideo), Balseiro Institute and National Technological University (Haedo, Rosario and Concepción del Uruguay) and to select high school teachers in Ushuaia and Buenos Aires. Jury to appoint a Director for an Institute (ISISTAN) CONICET-UNCPBA, an Institute (Instituto de Cálculo) of the University of Buenos Aires and an Institute (Instituto de Investigación en Ciencias de la Computación) CONICET-UBA.

Jury in Ph. D. dissertation defenses in computer sciences (Buenos Aires, Tandil-Universidad Nacional del Centro de la Provincia de Buenos Aires), mathematics (Buenos Aires, Santa Fe-Universidad Nacional del Litoral, Bahía Blanca-Universidad Nacional del Sur), physics (Buenos Aires), atmospheric sciences (Buenos Aires), geology (Buenos Aires), engineering (Buenos Aires, Rosario, Córdoba and Santa Fe-Universidad Nacional del Litoral) and social studies of science (Quilmes). Jury in M. Sc. thesis defenses in numerical simulation and control, bioengineering, environmental sciences and social studies of science (Buenos Aires), hydraulic engineering (Santa Fe-Universidad Nacional del Litoral), electronic arts (Caseros-Universidad Nacional de Tres de Febrero) and epistemology and history of science (Caseros-Universidad Nacional de Tres de Febrero).

Lectures in Buenos Aires, Rosario, Córdoba, Santa Fe, Paraná, Mar del Plata, Mendoza, Neuquén, La Plata, Bahía Blanca, Bariloche, Santa Rosa (La Pampa), Ushuaia, Tandil, Salta, Adrogué, Montevideo (Uruguay), Caracas (Venezuela), Tegucigalpa (Honduras), New York, Princeton, Cambridge (Massachusetts), Blacksburg (Virginia), Plovdiv (Bulgaria), Cruzeiro (SP, Brazil), Recife (PE, Brazil), The Hague (Nehterlands), Prague (Czech Republic), Santa María (RS, Brazil), La Laguna (Tenerife, Spain) and Asunción (Paraguay).

Invited Researcher at the Massachusetts Institute of Technology, Cambridge, Mass. (1989, 1990, 1992, 1993 and 1996).

Coordinator of the Special Program in Research, Development and Promotion of Informatics and Computer Science of the University of Buenos Aires (1992-95).

Coordinator of Applied Mathematics of the "Montevideo Group" Association of Universities, composed by Universities in Argentina, Brazil, Uruguay and Paraguay (1992-98 and 2008-2012).

Member since its creation of the Sub-commission in charge of the Ph. D. Program of the Department of Computer Science and member of the Commission in charge of the Ph. D. Programs of the School of Sciences of the University of Buenos Aires (1991-97).

Member of the Consulting Committee in Physics, Mathematics, Computer Sciences and Chemistry (1994-97) and of the Consulting Committee in Engineering and Environmental Sciences (2010-2013) of the University of Buenos Aires.

Member of the Editorial Board of *Redes*, a journal of social studies of science (1998-2001).

Reviewer of graduate studies programs (1999, 2000 and 2006) of the Blas Pascal University, Córdoba, (2000), and of the Universidad del Centro Educativo Latinoamerican and Univesridad Católica de Santiago del Estero – Departamento Académico Rafaela (2015) for the National Commission for Evaluation and Categorization of Universities (CONEAU).

Reviewer of grant proposals and/or researchers promotions for the National Agency for Science and Technology Promotion (ANPCyT), the National Council for Research, the Chilean National Council for Research, the Swiss National Science Foundation, the US National Science Foundation (NSF), the Uruguayan National Agency of Research and Innovation, the Committee for Scientific Research of the University of the Republic (Uruguay), the Ministry of Science, Technology and Innovation, the Office for Small and Medium Enterprises and Regional Development and several national Universities.

Reviewer of scientific articles for several congresses on computational mechanics (MECOM and ENIEF), the Inter-American Conference on Informatics (CLEI), the Argentinean Society of Informatics and Operations Research (SADIO), the Argentinean Mathematical Union (UMA) and the Argentinean Section of the Society for Industrial and Applied Mathematics (AR_SIAM).

Reviewer of scientific articles for the journals *Communications in Numerical Methods in Engineering*, *Latin American Applied Research*, *Geophysical Research Letters*, *Interfaces, Revista de la Unión Matemática Argentina*, *Meteorologica*, *Revista Mexicana de Ciencias Geológicas*, *Computational and Applied Mathematics, Revista Iberoamericana de Ciencia, Tecnología y Sociedad, Transportation Research D, IEEE Annals of the History of Computing, Revista de la Asociación Geológica Argentina*, *Revista Argentina de Educación Superior* and *Metatheoria*.

Reviewer of promotions and tenures of professors of the National University of Rosario (2001 and 2003) and for reviewing categories of professors in Northeastern Universities (Posadas, 2004 and Buenos Aires, 2010), Central Universities (Córdoba, 2006) and Buenos Aires Universities (Luján, 2006).

Member of the Board of EUDEBA, Buenos Aires University Press (2001-2002).

Member of the Consultant Board of the Project RAICES (Network of Argentinean Researchers Abroad) (2002- 2016).

Member of the Board of the Argentinean Scientific Society (2004 - 2012).

First Vice-president, Argentine University Council of Sciences, CUCEN (2004-2006).

Member of the Honorary Council of the Center of Studies for Development of Chemical Industry (CEDIQUIFA) (2004 - 2012).

Member of the Ph.D. program of the Instituto Tecnológico de Buenos Aires, ITBA (2004-2005 and 2010 -).

Researcher with Category I of the Ministry of Education Program.

Co-organizer of the I Czech-Argentine Biennale Workshop "e-Golems": Interdisciplinary aspects of human-machine co-existence and co-operation, Prague, June, 2005.

Member of the Tuning AL Project of Latin American Universities (2005-2007).

Member of the National Commission for Improvement of Teaching of Sciences and Mathematics (2007).

Co-organizer of the II Czech-Argentine Biennale Workshop "e-Golems": Information and Communication Society - Emerging Technologies and their Application to Art and Society, Buenos Aires, September, 2007.

Director of the group of research in renewable energy (ISEP) of the School of Engineering of the University of Buenos Aires (2003 - 2015).

Second Vice-President, Argentine Association of Applied, Computational and Industrial Mathematics - ASAMACI (2008 - 2014) and Argentine Section of the Society for Industrial and Applied Mathematics - AR-SIAM (2008 – 2014).

President of the Argentine Section of the Society for Industrial and Applied Mathematics – AR_SIAM (2014-).

Delegate appointed by the Ministry of Science, Technology and Innovation to the Math Amsud program, whose members represent institutions from Argentina, Brazil, Chile, France, Paraguay, Peru and Uruguay (2007- 2016).

Member of the jury of prizes offered by the Strategic Forum for National Development to works on prevention of dengue fever (2010).

Member of the Editor Board of the journal *Computational and Applied Mathematics* (2011- 2016).

Member of the Jury, National Academy of Sciences of Buenos Aires Prize (2011).

Member of the Jury, competition of essays regarding the 50th anniversary of the first university computer in Argentina, organized by the Department of Computer Sciences, Faculty of Sciences, University of Buenos Aires (2011).

Member of the Jury, Clarín-Zurich Prize for Education (improvement of teaching of sciences in high school). (2011).

President of Fundación para el Apoyo del Instituto de Investigación en Biomedicina de Buenos Aires – CONICET – Instituto Partner de la Sociedad Max Planck (2011-).

Editor of the dossier on "ICTs in Latin America: history and social impact", included in *Revista Iberoamericana de Ciencia, Tecnología y Sociedad* **18**.

Deputy Coordinator of the Committee for Informatics and Communication, CONICET (National Council of Sciences) (2012-2013).

Member (joint work with three other members from Argentina and abroad) of the Commission of Evaluation of the CONICET Scientific and Technological Center of San Luis (2012).

Member of the Jury, Clarín-Zurich Prize for Education (improvement of teaching of mathematics in high school) (2012).

Member of the Jury, sixth L'Oréal-UNESCO Prize "Women in Science", backed by CONICET (2012).

Member of the Academic Council of the Colegio Nacional de Buenos Aires (2012-).

Coordinator of the Postdoctoral Program of the National University of Tres de Febrero (2012-).

Coordinator of the Committee for Informatics and Communication, CONICET (National Council of Sciences) (2013-2014).

Deputy member in the area of Exact, Natural and Health Sciences of the Scientific Council of the Argentine-German University Center (2013).

Member of the Jury, Clarín-Zurich Prize for Education (improvement of teaching of ICT in high school) (2013).

Member (joint work with three other members from Argentina and abroad) of the Commission of Evaluation of the scientific and technological aspects of the National University of San Luis (2014).

Member of the Jury, Clarín-Zurich Prize for Education (improvement of environmental teaching in elementary school) (2014).

Member of the Jury, ARCITEC 2014 Prize (Art, Science, Technology), organized by the Buenos Aires Regional Faculty, National Technological University (2014).

Member of the Jury, Clarín-Zurich Prize for Education (improvement of teaching of social sciences in high school) (2015).

Member of the Jury, Clarín-Zurich Prize for Education (best practices of learning with a focus on reading, writing and speaking). (2016).

Member of the Jury, Clarín-Zurich Prize for Education (proposals of teaching approaches by high school teachers and educational colleges). (2017)

PEER-REVIEWED PUBLICATIONS

Maronna, R. A. and Jacovkis, P. M. (1974), Multivariate clustering procedures with variable metrics, *Biometrics* **30**, 499-505.

Jacovkis, P. M. (1989), Modelos hidrodinámicos en cuencas fluviales, *Revista Internacional de Métodos Numéricos para Diseño y Cálculo en Ingeniería* **5**, 295-319.

Jacovkis, P. M., Gradowczyk, M. H., Freisztav, A. M. and Tabak, E. G. (1989), A linear programming approach to water-resources optimization, *Methods and Models of Operations Research* **33**, 341-362.

Gradowczyk, M. H., Jacovkis, P. M., Freisztav, A. M., Roussel, J.-M. and Tabak, E. G. (1990), Water resources optimization-simulation in Argentina, *European Journal of Operational Research* **49**, 247-253.

Jacovkis, P. M. (1990), Modelos numéricos hidrodinámicos en redes fluviales complejas, *Revista Internacional de Métodos Numéricos para Cálculo y Diseño en Ingeniería* **6**, 543-572.

Jacovkis, P. M. (1990), Modelos hidrodinámicos unidimensionales con estructuras espaciales complejas, *Revista de la Unión Matemática Argentina* **35**, 137-150 (issue dedicated to Julio Rey Pastor).

Jacovkis, P. M. (1991), One-dimensional hydrodynamic flow in complex networks and some generalizations, *SIAM J. of Applied Math* **51**, 948-966.

Jacovkis, P. M. (1991), Simplified fixed and mobile bed hydrodynamic models as scalar conservation laws, *Revista de la Unión Matemática Argentina* **37**, 271-281.

Jacovkis, P. M. and Rosales, R. R. (1993), Análisis numérico de ondas de detonación retardada, *Revista Internacional de Métodos Numéricos para Cálculo y Diseño en Ingeniería* **9**, 335-356.

Savioli, G. B., Bidner, M. S. and Jacovkis, P. M. (1996), Statistical analysis of heterogeneities and their effect on build-up and draw-down tests, *Journal of Petroleum Science and Engineering* **15**, 45-55.

Savioli, G. B., Bidner, M. S. and Jacovkis, P. M. (1996), The influence of heterogeneities on well test pressure response: a sensitivity analysis, *Advanced Technology Series, Society of Petroleum Engineering* **4**:1, 67-72.

Jacovkis, P. M. and Tabak, E. G. (1996), A kinematic wave model for rivers with flood plains and other irregular geometries, *Mathematical and Computer Modelling* **24**, 1-21.

Savioli, G. B., Jacovkis, P. M. and Bidner, M. S. (1997), Stability analysis and numerical simulation on 1-D and 2-D radial flow towards an oil well, *Computers & Mathematics with Applications* **33**,121-135.

Savioli, G. B., Bidner, M. S., Jacovkis, P. M. and Lake, L. W. (1997), Influencia de la permeabilidad vertical en el flujo de petróleo hacia un pozo productor, *Revista Internacional de Métodos Numéricos para Cálculo y Diseño en Ingeniería* **13**, 576-589.

Savioli, G. B., Jacovkis, P. M. and Bidner, M. S. (1998), On some numerical methods for solving 2-D radial flow towards an oil well, *Mathematics and Computers in Simulation* **47**, 17-36.

Jacovkis, P. M., Savioli, G. B. and Bidner, M. S. (1999), Mathematical modelling for flow towards an oil well, *International Journal of Numerical Methods in Engineering* **46**, 1521-1540.

Compagnucci, R. H., Blanco, S. A., Figliola, M. A. and Jacovkis, P. M. (2000), Variability in subtropical Andean Argentinean Atuel river: a wavelet approach, *Environmetrics* **11**, 251-269.

Ponta, F. L. and Jacovkis, P. M. (2001), A vortex model for Darrieus turbines using finite element techniques, *Renewable Energy* **24**, 1-18.

Ponta, F. L. and Jacovkis, P. M. (2002), Constant-curl Laplacian equation: a new approach for the analysis of flows around bodies, *Computers and Fluids* **32**, 975-994.

Fraidenraich, A., Jacovkis, P. M. and Lima, F. R. A. (2003), Sensitivity computations using first and second order perturbative methods for the advection-diffusion-reaction model of pollutant transport, *Journal of the Brazilian Society of Mechanical Sciences and Engineering* **25**, 23-29.

Fraidenraich. A., Jacovkis, P. M. and Lima, F. R. A. (2003), Sensitivity computations of the viscous kinematic wave using perturbative methods, *International Journal of Heat and Technology* **21**, 85-92.

Rosso, O. A., Figliola, M. A., Blanco, S. A. and Jacovkis, P. M. (2004), Signal separation with almost periodic components: a wavelets based method, *Revista Mexicana de Física* **50**, 179-186.

Jacovkis, P. M. (2004), Reflexiones sobre la historia de la computación en Argentina, *Saber y Tiempo* **5** (17), 127-146.

Jacovkis, P. M. (2005), Computadoras, modelización matemática y ciencia experimental, *Revista Iberoamericana de Ciencia, Tecnología y Sociedad* **2**, Nro. 5, 51-63.

Pérez Leale, E. A., Jacovkis, P. M. and Chara, O. (2005), Difusión de un trazador en un espacio bidimensional: modelo de difusión de agua en una membrana biológica, *Anales de la Asociación Física Argentina* **17**, 328-332.

Quinteros, J., Ramos, V. A. and Jacovkis, P. M. (2005), Modelado numérico para la deformación de la corteza superior en los Andes Australes, *Revista de la Asociación Geológica Argentina* **60**:4, 714--723.

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LANGUAGES

Spanish, English, French, Italian, understanding of German.

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