

## PROFESSOR BAZIL PÂRV AT HIS SIXTIES

SIMONA MOTOGNA

The head of the Department of Computer Science, Prof. Ph.D. Bazil Pârv, is one of the most acknowledged personalities in Computer Science from Romania.

Professor Bazil Pârv was born on 27th of September, in Petreștii de Jos, Cluj county. He graduated Computer Science program at Babeș-Bolyai University, Faculty of Mathematics and Computer Science in 1976, and in 1977 the master program in Specialized Languages, at the same faculty. After graduation, he worked in the industry as a programmer, from 1977 to 1979 at Computer Center of the Jiu Valley Coal Mining Combinat, Petroșani, Hunedoara, and from 1979 to 1990 at the Computer Center of the Babeș-Bolyai University.

In 1990 he obtained the Ph.D. title under the supervision of prof. Pal Arpad, with the thesis *Averaging method with applications to celestial mechanics*. His career has evolved constantly and the contributions of professor Pârv work have influenced the academic and research life of our university.

### 1. CONTRIBUTIONS TO THE RESEARCH DOMAIN

Over the years, his research interests have been: Celestial Mechanics, Symbolic Computation, Mathematical Modelling with applications to Chemistry, Agriculture and Civil Engineering, Software Engineering, Component-based Programming. A synthesis of his scientific publications includes:

- 9 books and university manuals, including two book chapters published in international editions;
- 23 papers in ISI journals;
- 11 papers in ISI proceedings;
- 21 papers in other international and national journals;
- 21 participations in international and national conferences.

The main research contributions of professor Pârv are:

- the design and implementation of a Poisson symbolic processor with application to Celestial Mechanics

- algorithms and software systems for molecular topology. This contribution has led to a very successful collaboration with the research group of prof. Diudea (Faculty of Chemistry), several high-quality papers, and over 200 citations.
- ComDeValCo: a conceptual framework for Component Definition, Validation and Composition, designed for defining executable models that could be turned into software components.

As a confirmation of the importance of his research ideas, the work of professor Pârş has been frequently cited in the specialty literature.

## 2. DIDACTICAL ACTIVITY OF PROFESSOR PÂRŞ

Professor Bazil Pârş has been a member of the Department of Computer Science from 1990. He stepped through all the didactical positions starting from lecturer. In 1998 he received the title of full professor and since 2005 he became Ph.D. supervisor. His vision of Computer Science has definitely influenced the development of our department. He had introduced several new courses in the direction of Software Engineering and Component Based Programming. Over the years he taught 13 courses in our department, had introduced the master programme in Component Based Programming, had contributed to the introduction of master programme in Software Engineering, and also taught two courses as visiting professor at Wayne State University.

In 2008 professor Bazil Pârş was elected head of the Chair of Programming Languages and Methods, and since 2012 he is the head of Computer Science Department, being actively involved in the development of academic programs offered by Computer Science Department.

## 3. CONTRIBUTION TO THE ACADEMIC COMMUNITY

Over the years, professor Pârş has been a constant contributor to the academic development of our university. He had developed 12 administrative software applications for accounting, management of department staff, salaries, admission to university and several applications for student management. These applications had served as a model for developing an overall academic management system.

He is also a very active personality in the academic research community. He has been part of 32 research grants, being principal investigator in 13 of them, and from last year he is member in an international grant with EU financial support. Due to his recognition, he has been member of over 50 PhD and Habilitation committees, and he is the vice-president of the Computer Science Board of CNATDCU (National Council for Certification of University Titles, Diplomas and Certificates).

Professor Pârv is a member of many scientific and professional organizations, of the Scientific Committees of several conferences and reviewer for several high quality journals. He is the chair of the track Knowledge in Software Engineering, at Knowledge Engineering: Principles and Techniques Conference, organized by the Department of Computer Science since 2007.

We wish professor Pârv a long life, health, happiness and a lot of achievements, beside his family, for the benefit of our faculty, all his students, colleagues, and collaborators.

#### 4. SELECTED LIST OF PUBLICATIONS

A short list of most valuable publications of Professor Pârv:

##### **Books and book chapters published in international editions:**

- (1) Motogna Simona-Claudia, Lazar Ioan, **Pârv Bazil**, chapter, An MDA Approach for Developing Executable UML Components , Model-Driven Domain Analysis and Software Development: Architectures and Functions, IGI Global, Hershey, PA 17033, USA, Editor: J.Osis, E. Asnina, 2011, P. 254-273
- (2) Stefu M, Diudea Vasile-Mircea, Jantschi Lorentz, **Pârv Bazil**, chapter, Algorithms for basic operations on maps, Nanostructures-Novel Architecture, NOVA, New York, Editor: M.V.Diudea, 2005, P. 243-267

##### **Books and university courses published in Roumanian editions:**

- (1) **Pârv Bazil** - Dezvoltarea rapidă a aplicațiilor cu Visual Basic, ISBN 973-9417-02-7, Editura Gil, Zalău, 2003, 552p.
- (2) **Pârv Bazil** - Analiza și proiectarea sistemelor, Universitatea Babeș-Bolyai, Centrul de Formare Continuă și Invățământ la Distanță, Facultatea de Matematică și Informatică, Cluj-Napoca, ed. I-a, 2001, 200p, ed. a II-a, 2002, 202p, ed. a III-a, 2003, 202p.
- (3) **Pârv Bazil**, A.I. Vancea - Fundamentele limbajelor de programare, ISBN 973-9215-25-4, Editura Microinformatica, Cluj-Napoca, 1996, 321p.
- (4) F.M. Boian, V. Cioban, M. Frențiu, S. Groze, E. Iacob, S. Iurian, Z. Kasa, S. Motogna, **Pârv Bazil**, H.F. Pop, V. Prejmerean, J. Robu, T. Toadere Programare Pascal; programe ilustrative, probleme propuse pentru elevi și studenți ISBN 973-96862-1-4, Editura Promedia-Plus, Cluj-Napoca, 1995, 228p.
- (5) M. Frențiu, **Pârv Bazil** - Elaborarea programelor. Metode și tehnici moderne ISBN 973-96114-9-4, Editura ProMedia, Cluj-Napoca, 1994, 220p.

- (6) **Pârv Bazil**, A.I. Vancea - Fundamentele limbajelor de programare, Lito Univ. Babeş-Bolyai Cluj-Napoca, 1992, Vol 1,2, 426p.
- (7) F.M. Boian, V. Cioban, M. Frenţiu, S. Groze. E. Iacob, S. Iurian, Z. Kasa, S. Motogna, **Pârv Bazil**, H.F. Pop, V. Prejmerean, J. Robu, T. Toadere Culegere de probleme pentru lucrările de laborator, Lito Univ. Babeş-Bolyai Cluj-Napoca, 1992, 180p.

**Papers in ISI journals:**

- (1) **Pârv Bazil**, Joldes Iulian Flaviu, Parpucea Ilie, Lupse V., PyBNEq - A Tool for Computing Bayes-Nash Equilibria, INTERNATIONAL JOURNAL OF COMPUTERS COMMUNICATIONS AND CONTROL, Vol. 8, No. 4 , 2013, P.571–577
- (2) **Pârv Bazil**, Parpucea Ilie, Socaciu Tiberiu, Modeling Uncertainty in a Decision Problem by Externalizing Information, INTERNATIONAL JOURNAL OF COMPUTERS COMMUNICATIONS AND CONTROL, 6, 2, 2011, P.328–336
- (3) Lazar Ioan, Lazar Codrut Lucian, **Pârv Bazil**, Motogna Simona-Claudia, Czibula Istvan-Gergely, Tool Support for fUML Models, IJCCC, Vol. 5 (No. 5), 2010, P.775–782
- (4) **Pârv Bazil**, Diudea Vasile-Mircea, Vizitiu Aniela Elena, Stefu Monica, Tubercular fulleroides, JOURNAL OF MATHEMATICAL CHEMISTRY, 45, 2009, P.513–524
- (5) **Pârv Bazil**, The Architecture of Software Systems for Molecular Topology, MATCH-COMMUNICATIONS IN MATHEMATICAL AND IN COMPUTER CHEMISTRY, 60, No. 3, 2008, P.869–882
- (6) **Pârv Bazil**, Lazar Ioan, Motogna Simona, ComDeValCo Framework - The Modeling Language for Procedural Paradigm, INTERNATIONAL JOURNAL OF COMPUTERS COMMUNICATIONS CONTROL, III, no. 2, 2008, P.183–195
- (7) Czibula Istvan-Gergely, Lazar Codrut Lucian, Lazar Ioan, Motogna Simona, **Pârv Bazil**, ComDeValCo Development Tools for Procedural Paradigm, INTERNATIONAL JOURNAL OF COMPUTERS COMMUNICATIONS AND CONTROL, III, 2008, P.243–247
- (8) Ursu Oleg, **Pârv Bazil**, Diudea Vasile-Mircea, Costescu Adina Mariana, QSAR Modeling of Antifungal Activity of Some Heterocyclic Compounds, CROATICA CHEMICA ACTA, 79, no. 3, 2006, P.483–488
- (9) **Pârv Bazil**, Motogna Simona-Claudia, Petrascu Dragos, COMODI: Auto-mata-Based Compositional Analysis of Component Systems. Design and Implementation Issues, CARPATHIAN JOURNAL OF MATHEMATICS, XX, no. 2, 2004, P.197–203

- (10) Ursu Oleg, **Pârv Bazil**, Diudea Vasile-Mircea, Costescu Adina Mariana, QSARs of some Novel Isosteric Heterocyclic with Antifungal Activity, *CARPATHIAN JOURNAL OF MATHEMATICS*, XX, no. 2, 2004, P.267–274
- (11) **Pârv Bazil**, Diudea Vasile-Mircea, Stefu Monica, John P. E., Wiener Index of Armchair Polyhex Nanotubes, *CROATICA CHEMICA ACTA*, 77, no. 1-2, 2004, P.111–115
- (12) **Pârv Bazil**, Diudea Vasile-Mircea, Azulenic Tori, *MATCH-COMMUNICATIONS IN MATHEMATICAL AND IN COMPUTER CHEMISTRY*, 47, 2003, P.53–70
- (13) Diudea Vasile-Mircea, **Pârv Bazil**, John P. E., John P. E., Ursu Oleg, Graovac A., Distance counting in tori, *MATCH-COMMUNICATIONS IN MATHEMATICAL AND IN COMPUTER CHEMISTRY*, 49, 2003, P.23–36
- (14) **Pârv Bazil**, Diudea Vasile-Mircea, Silaghi-Dumitrescu Ioan, Toranes versus Torennes, *MATCH-COMMUNICATIONS IN MATHEMATICAL AND IN COMPUTER CHEMISTRY*, 44, 2001, P.117–133
- (15) **Pârv Bazil**, Diudea Vasile-Mircea, Gutman Ivan, Detour-Cluj Matrix and Derived Invariants, *JOURNAL OF CHEMICAL INFORMATION AND MODELING*, 37, 1997, P.1101–1108
- (16) Diudea Vasile-Mircea, **Pârv Bazil**, Delta Number, Dde, of Dendrimers, *CROATICA CHEMICA ACTA*, 70, 1997, P.509–517
- (17) Diudea Vasile-Mircea, **Pârv Bazil**, Topan M.I., Derived Szeged and Cluj Indices, *JOURNAL OF THE SERBIAN CHEMICAL SOCIETY*, 62, 1997, P.267–276
- (18) **Pârv Bazil**, Diudea Vasile-Mircea, Molecular Topology 25. Hyper-Wiener Index of Dendrimers, *JOURNAL OF CHEMICAL INFORMATION AND MODELING*, 35, 1995, P.1015–1018
- (19) Katona Gabriel, Diudea Vasile-Mircea, **Pârv Bazil**, Minailiuc Ovidiu, Wiener and Hyper-Wiener Indices in Spiro-Graphs, *RUSSIAN CHEMICAL BULLETIN*, 44, 1995, P.1606–1611
- (20) Diudea Vasile-Mircea, Horvath Daniela, Minailiuc Ovidiu, **Pârv Bazil**, Centricities in Molecular Graphs. The MOLCEN Algorithm, *JOURNAL OF MATHEMATICAL CHEMISTRY*, 11, 1992, P.259–270
- (21) Diudea Vasile-Mircea, Parv Bazil, A New Centric Connectivity Index (CCI), *MATCH-COMMUNICATIONS IN MATHEMATICAL AND IN COMPUTER CHEMISTRY*, 23, 1988, P.65–87

#### ISI Proceedings of International Conferences:

- (1) Zur Bargury Iris, **Pârv Bazil**, Lanzberg Dvir, A nationwide exam as a tool for improving a new curriculum, *ITICSE 2013 ACM Conference on*

- Innovation and Technology in Computer Science Education, 1, ACM, 2013, P. 267–272
- (2) Lazar Ioan, Motogna Simona-Claudia, **Pârv Bazil**, Realizing Use Cases for Full Code Generation in the Context of fUML, Model-Driven Architecture and Modeling Theory-Driven Development - MDA-MTDD 2010, MDA and MTDD 2010 Athens, Springer, 2010, P. 80–89
  - (3) Lazar Ioan, Motogna Simona-Claudia, **Pârv Bazil**, Behaviour-Driven Development of Foundational UML Components, FESCA 2010, Electronic Notes in Theoretical Computer Science (ENTCS), Volume 264 Issue 1, August, 2010, Elsevier Science Publishers, P. 91–105
  - (4) **Pârv Bazil**, Lazar Ioan, Motogna Simona-Claudia, Czibula Istvan-Gergely, Lazar Codrut Lucian, COMDEVALCO Framework - Procedural and Modular Issues, 2nd International Conference Knowledge Engineering: Principles and Techniques (KEPT 09), Cluj University Press, Editor: M. Frentiu, H.F. Pop, 2009, P. 213–222
  - (5) Motogna Simona-Claudia, Lazar Ioan, **Pârv Bazil**, Czibula Istvan-Gergely, An Agile MDA Approach for Service-Oriented Components, Sixth International Workshop on Formal Engineering approaches to Software Components and Architectures (FESCA 2009) Elsevier, Editor: J.Happe, B. Zimmerova, 2009, P. 95–110
  - (6) Lazar Ioan, Motogna Simona-Claudia, **Pârv Bazil**, Czibula Istvan-Gergely, Lazar Codrut Lucian, Rapid prototyping of service-oriented applications on OSGi platform, 4th Balkan Conference in Informatics, 2009, Thessaloniki, Greece, IEEE Computer Society, 2009, P. 217–222
  - (7) Lazar Ioan, Lazar Codrut Lucian, **Pârv Bazil**, Motogna Simona-Claudia, Czibula Istvan-Gergely, Using a fUML Action Language to construct UML models, 11th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, Timisoara, Romania, 2009, SYNASC 2009, IEEE Computer Society, 2009, P. 93–101
  - (8) Lazar Ioan, Motogna Simona-Claudia, **Pârv Bazil**, Rapid Prototyping of Conversational Web Flows, The Second International Conference Knowledge Engineering: Principles and Techniques (KEPT 09), Studia Universitatis Babes-Bolyai, Informatica, LIV, Studia UBB, Informatica Special Issue, 2009, P. 223–230
  - (9) Lazar Ioan, **Pârv Bazil**, Motogna Simona-Claudia, Lazar Codrut Lucian, An Agile MDA Approach For The Development Of Service-Oriented Component-Based Applications, International Conference on Complexity and Intelligence of the Artificial and Natural Complex Systems, Complexity in Artificial and Natural Systems, Proceedings, Editura Universitatii Petru Maior Targu-Mures, Editor: Iantovics B; Enachescu C; Filip F, 2008, P. 37–46

- (10) Lazar Ioan, **Pârv Bazil**, Motogna Simona-Claudia, Czibula Istvan-Gergely, Lazar Codrut Lucian, iComponent: A Platform-independent Component Model for Dynamic Execution Environment, 10th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, SYNASC 2008, IEEE Computer Society, Editor: Bruno Buchberger, 2008, P. 257–264
- (11) Lazar Zsolt-Iosif, Vescan Andreea, Petrascu Dragos, Petrascu Vladiela, Parv Bazil, COMODI: On the Graphical User Interface, 7th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC05), SYNASC 2005 7th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, IEEE Computer Society Press, Editor: D. Zaharie et al, 2005, P. 109–113

DEPARTMENT OF COMPUTER SCIENCE, BABEȘ-BOLYAI UNIVERSITY, 1 M. KOGĂLNICEANU ST., 400084 CLUJ-NAPOCA, ROMANIA  
*E-mail address:* `motogna@cs.ubbcluj.ro`