

FLORIAN A. POTRA

office phone: (410)455-2429, *fax:* (410)455-1066 *e-mail:* potra@umbc.edu
office address: Dept. of Math. & Stat., UMBC, 1000 Hilltop Circle, Baltimore, MD 21250

PROFESSIONAL PREPARATION

- 1982–1983 Andrew Mellon Postdoctoral Fellow, Department of Mathematics & Statistics, University of Pittsburgh.
- 1976–1980 University of Bucharest, Ph.D. in Mathematics, 1980.
- 1973–1974 Graduate studies at Babeş–Bolyai University, Cluj, Romania, Certificate of Specialization in Mathematical Analysis (M.S.), 1974.
- 1969–1973 Babeş–Bolyai University, Cluj, Romania, Diploma in Mathematics, 1973.

APPOINTMENTS

- 1998–present Professor, Department of Mathematics and Statistics, UMBC.
- 2008–2009 Royden B. Davis Chair for Interdisciplinary Studies, Georgetown University.
- 1998–1999 Chair, Department of Mathematics and Statistics, UMBC.
- 1997–1998 Program Director for Applied Math and Computational Math, NSF.
- 1992–1997 Professor, Department of Computer Science, University of Iowa.
- 1990–1997 Professor, Department of Mathematics, University of Iowa.
- 1984–1990 Associate Professor, Department of Mathematics, University of Iowa.
- 1983–1984 Visiting Assistant Professor, Department of Mathematics & Statistics, University of Pittsburgh.
- 1978–1982 Scientist, Department of Mathematics, The National Institute for Scientific and Technical Creation (INCREST), Bucharest, Romania.
- 1974–1978 Analyst, Digital Processing Center, Geological and Geophysical Prospecting Company for Hydrocarbons (IPGGH), Bucharest, Romania.

TEN PUBLICATIONS MOST CLOSELY RELATED TO THE PROPOSED PROJECT

1. X. Liu and F.A. Potra: Corrector-predictor methods for sufficient linear complementarity problems in a wide neighborhood of the central path, *SIAM Journal on Optimization*, 17, 3(2006), 871–890.
2. F.A. Potra: Corrector–predictor methods for monotone linear complementarity problems in a wide neighborhood of the central path, *Mathematical Programming, Ser. B*, 111, 1-2(2008), 243–272.
3. F.A. Potra: Primal-dual affine scaling interior point methods for linear complementarity problems, *SIAM Journal on Optimization*, 19, 1(2008), 114–143.
4. F. Maggioni, F.A. Potra, M. Bertocchi and E. Allevi: Stochastic second-order cone programming in mobile ad hoc networks, *Journal of Optimization Theory and Applications*, 143(2009) 309-328.
5. F.A. Potra and J. Stoer: On a class of superlinearly convergent polynomial time interior point methods for sufficient LCP, *SIAM Journal on Optimization*, 20, 3(2009), 1333–1363.

6. F.A. Potra and E. Simiu: Multihazard Design: Structural Optimization Approach, *Journal of Optimization Theory and Applications*, 144, 2010, 120–136.
7. F. Gurtuna, C. Petra, F.A. Potra, O. Shevchenko and A. Vanea: Corrector-predictor methods for sufficient linear complementarity problems, *Computational Optimization and Applications*, 48, 3(2011), 453–485.
8. F.A. Potra: Weighted complementarity problems - a new paradigm for computing equilibria, *SIAM Journal on Optimization*, 22, 4(2012), 1634-1654.
9. F.A. Potra and H. Engler: A characterization of the behavior of the Anderson acceleration on linear problems, *Linear Algebra and its Applications*, 438, 3(2013), 1002 –1011.
10. F.A. Potra: Interior point methods for sufficient horizontal LCP in a wide neighborhood of the central path with best known iteration complexity, *SIAM Journal on Optimization* 24, 1(2014), 1-28.

SYNERGISTIC ACTIVITIES

- Co-inventor of “System and method of applying interior point method for online model predictive control of gas turbine engines”, United States Patent Application Publication, Pub. No. US 2006/0282177 A1.
- Co-developer of KPP - Kinetic PreProcessor : a comprehensive software package for chemical kinetics that is being used by academia and industry in many countries around the world.

COLLABORATORS AND CO-EDITORS (last 5 years)

S. Al-Homidan (King Fahd University of Petroleum and Minerals), E. Allevi (University of Brescia), M.M. Alshahrani (King Fahd University of Petroleum and Minerals), M. Anitescu (Argonne National Laboratory), M. Bertocchi (University of Bergamo), O. Burdakov (Linköping University), H. Engler (Georgetown University), A. Griewank (Humboldt University Berlin), J. Ji (Kennesaw State U.), F. Maggioni (University of Bergamo), A. Sandu (Virginia Tech), E. Simiu (NIST), H. Su (UMBC), J. Stoer (University of Wuerzburg), T. Tsuchiya (The Institute of Statistical Mathematics, Tokyo), S. Ulbrich (Technische Universitaet Darmstadt), D. Yeo (NIST).

GRADUATE ADVISORS AND POSTDOCTORAL SPONSORS

C. Foias (Texas A&M), W. Rheinboldt (retired).

THESIS ADVISOR AND POSTGRADUATE-SCHOLAR SPONSOR

Prapasri Asawakun (Ph.D. 1989, Suranaree University of Technology, Thailand), Jeng Yen (Ph.D. 1990, Jet Propulsion Laboratory), Hosae Lee (Ph.D. 1991, TechnoBay), Qing Qing Fu (Ph.D. 1992), Yixun Shi (Ph.D. 1992, Bloomsberg University), Jun Ji (Ph.D. 1993, Kennesaw State University), Goran Lesaja (Ph.D. 1996, Georgia Southern University), Mihai Anitescu (Ph.D. 1997, Argonne National Laboratory), Dan Coroian (Ph.D. 1997, University of Indiana, Purdue), Adrian Sandu (Ph.D. 1997, Virginia Tech), Rongqin Sheng (Ph.D. 1997, SymphonyIRI Group), Valeriu Damian-Iordache (Ph.D. 1998, Glaxo Smith Kline), Xing Liu (Ph.D. 2005, Newday Financial), Bogdan Gavrea (Ph.D. 2006, Technical University of Cluj-Napoca, Romania), Dan Wang (Ph.D. 2008, Catalina Health), Cosmin Petra (Ph.D. 2009, Argonne National Laboratory), Adrian Vanea (Ph.D. 2009, National Institute of Health).