

Michal Ben-Nun

Predictive Science Inc.

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Experience

Michal Ben-Nun is a Theoretical Chemist with more than 25 years research experience both in the analysis of complex datasets and the development, implementation and deployment of massively parallel computational algorithms. Dr. Ben-Nun has in-depth knowledge of various programming languages (FORTRAN, C, Python, Perl and R), parallel programming (OpenMP and MPI), and systems architectures operations and performance characteristics. She is an active reviewer for the Journal of Chemical Physics and is a member of the American Chemical Association. At Predictive Science she is applying her numerical and analytical skills to the Influenza Dynamics Forecasting effort and to Solar Physics. Michal came to the US as a Fulbright and Rothchild Fellow.

Education

- Ph.D., Theoretical Chemistry, The Hebrew University of Jerusalem, Jerusalem, Israel, 1996.
- B.Sc., Chemistry, The Hebrew University of Jerusalem, Jerusalem, Israel, 1990.

Professional Activities

- 2011 – Present Research Scientist, Predictive Science Inc.
- 2007 – 2011 Research Scientist, Spectral Associates.
- 2003 – 2007 Off-Site Consultant, University of Illinois at Urbana-Champaign
- 2002 – 2003 Lecturer, Department of Chemistry, Santa Clara University.

Recent Publications

J. Turtle, P. Riley, M. Ben-Nun and S. Riley, Accurate Influenza Forecasts Using Type-Specific Incidence Data for Small Geographic Units, MedRxiv, 2020, <https://doi.org/10.1101/19012807>.

M. Owens, M. Lang, L. Barnard, P. Riley, M. Ben-Nun et al., A Computationally-Efficient, Time-Dependent Model of the Solar Wind for use as a Surrogate to 3-Dimensional Numerical Magnetohydrodynamic Simulations, *Solar Physics*, 295, 43 (2020).

M. Ben-Nun, P. Riley, J. Turtle et al., Forecasting National and Regional Influenza-Like-Illness for the USA, *Plos. Comput. Biol.* 15(5), 2019.

N. G. Reich, C. J. McGowan, T. K. Yamana et al., “Accuracy of Real-Time Multi-Model-Ensemble Forecasts for Seasonal Influenza in the US”, *Plos. Comput. Biol.* 15(11) 2019.

P. Riley, M. Ben-Nun, J.A. Linker et al., Forecasting the Properties of the Solar Wind using Simple Pattern Recognition, *Space Weather* 15(3), 2017

P. Riley, M. Ben-Nun, Jon A. Linker et al., Early Characterization of the Severity and Transmissibility of Pandemic Influenza Using Clinical Episode Data from Multiple Populations, *Plos. Comput. Biol.* 11, 2015

P. Riley, M. Ben-Nun, J.A. Linker et al., A Multi-Observatory Inter-Comparison of Line-of-Sight Synoptic Solar Magnetograms, *Solar Phys.* 289, 769-792, doi:10/1007/s11207-013-0353-1, 2014.