ZLATKO DIMCOVIC

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PRISM Climate Group
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Engineering
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EDUCATION

Oregon State University	Ph.D. (Physics-Quantum Computing)	2012
Case Western Reserve University	M.S. (Theoretical Physics)	2001
Imperial College, London	M.S. (Theoretical Physics)	1996
University of Belgrade	B.S. (Physics)	1994

PROFESSIONAL EXPERIENCE

2012-	Faculty Research Assistant, Northwest Alliance for Computational Science and Engineering
2005-2012	Scientific computing and research, Oregon State University
1995-2005	Scientific computing and contract work, London and Cleveland, OH

PROFESSIONAL ACTIVITIES

Zlatko Dimcovic's work interest is in writing software to solve complex scientific problems, in particular those that are algorithmically and technically challenging. His efforts involve low-level code in compiled languages and higher level scripting tools in a variety of languages including C++, C, modern Fortran, Perl, Python, Matlab, and Mathematica. He has proficiency with handling large data sets, networking, system management and maintenance, parsing, conversion of data/file formats, and graphical interfaces.

Zlatko has been a Computational Modeling Engineer in Oregon State University's PRISM Climate Group, Northwest Alliance for Computational Science and Engineering, since 2012. The PRISM Climate Group is a recognized world leader in spatial climate analysis. The group developed and continues to update digital maps of long-term normals and daily and monthly time series for the conterminous US, downloaded approximately 750,000 times per month from the PRISM Web site. They developed the first-ever detailed climate and species suitability maps for the People's Republic of China, aiding Oregon grass seed growers in creating a multi-million dollar market for their seeds in China. They have also been updating official NOAA extreme precipitation maps that provide guidance used by states, counties, and municipalities to determine building codes and regulations. They released the first digital USDA Plant Hardiness Zone Map, the key plant selection guide for horticulturalists, nurserymen, and gardeners; this map received 20 million online accesses in the first two weeks of release. The group has an ongoing relationship with the USDA Risk Management Agency, which oversees the federal crop insurance program. In an effort to improve the integrity and efficiency of the claims process, the RMA asked the group to provide high-quality spatial weather and climate data on a daily basis for every farm in the lower 48 states. In addition, PRISM long-term climate datasets are being used in conjunction with soils data and a water balance model to establish zones of crop suitability to provide greater accuracy and spatial detail in crop insurance underwriting.

HONORS & AWARDS

2012   ARS Excellence in Information Award: Presented to the OSU PRISM Climate Group and selected USDA/ARS employees for contribution to the successful design, development, and implementation of the 2012 USDA Plant Hardiness Zone Map.

2012   Environmental Systems Research Institute international award: Special Achievement in GIS, presented to the OSU PRISM Climate Group and the USDA/ARS Office of National Programs for outstanding work in developing and communicating the 2012 USDA Plant Hardiness Zone Map for the United States and Puerto Rico.

PUBLICATIONS

Daly, C., Doggett, M.K., Smith, J.I., Olson, K.V., Halbleib, M.D., **Dimcovic, Z**., Loiselle, R.A., Ryan, A.D., Pancake, C.M., Kaspar, E.M. 2021. Challenges in observation-based mapping of daily precipitation across the conterminous United States. *Journal of Atmospheric and Oceanic Technology*. Accepted.