

Biographical Sketch for Milija Zupanski

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Professional Preparation

1980	B.S. in Meteorology, University of Belgrade, Serbia
1987	M.S. in Meteorology, University of Oklahoma
1990	Ph.D. in Meteorology, University of Oklahoma

Appointments

2011-present	CIRA Fellow
2010-present	Senior Research Scientist, CIRA/CSU
2003-2010	Research Scientist III, CIRA/CSU
2002-2003	Research Scientist II, CIRA/CSU
2001-2002	CIRA Associate Fellow, CIRA/CSU
1992-2001	Visiting Scientist, UCAR/NOAA/NCEP
1990-1992	Post-Doctoral Fellowship, UCAR/NOAA/NMC
1985-1990	Graduate Research Assistant, University of Oklahoma
1980-1985	Chief, Regional Radar Center, Hydro-meteorological Institute of Serbia, Yugoslavia

Relevant Research Publications (up to five)

1. Zupanski, D., S. Q. Zhang, M. Zupanski, A. Y. Hou, and S. H. Cheung, 2011: A prototype WRF-based ensemble data assimilation system for downscaling satellite precipitation observations. *J. Hydromet.*, **12**, 118-134.
2. Carrassi, A., S. Vannitsem, D. Zupanski, and M. Zupanski, 2009: The Maximum Likelihood Ensemble Filter performances in chaotic systems. *Tellus A*, **61**, 587-600.
3. Zupanski, M., I. M. Navon, and D. Zupanski, 2008: The Maximum Likelihood Ensemble Filter as a non-differentiable minimization algorithm. *Q. J. R. Meteorol. Soc.*, **134**, 1039-1050.
4. Fletcher, S.J., and M. Zupanski, 2006: A data assimilation method for lognormally distributed observation errors. *Q. J. Roy. Meteorol. Soc.*, **132**, 2505-2520.
5. Zupanski, M., 2005: Maximum Likelihood Ensemble Filter: Theoretical Aspects. *Mon. Wea. Rev.*, **133**, 1710–1726.

Other Significant Research Publications

1. Zupanski, M., 2009: Theoretical and Practical Issues of Ensemble Data Assimilation in Weather and Climate. *Data Assimilation for Atmospheric, Oceanic, and Hydrologic Applications*, S.-K. Park and L. Xu, Eds, Springer-Verlag Berlin, 65-82, 495 pp.
2. Zupanski, M., and I. M. Navon, 2007: Predictability, observations, and uncertainties in the geosciences. *Bull. Amer. Meteor. Soc.*, **88**, 1431-1433.
3. Zupanski, M., D. Zupanski, T. Vukicevic, K. Eis, T. Vonder Haar, 2005: CIRA/CSU four-dimensional variational data assimilation system. *Mon. Wea. Rev.*, **133**, 829-843.
4. Zupanski, M., D. Zupanski, D. Parrish, E. Rogers, and G. DiMego, 2002: Four-dimensional variational data assimilation for the Blizzard of 2000. *Mon. Wea. Rev.*, **130**, 1967-1988.
5. Zupanski, M., and E. Kalnay, 1999: Principles of Data Assimilation. *Global Energy and Water Cycles*, Cambridge Univ. Press. Ed. K.A. Browning and R.J. Gurney, 48-54.

Synergistic Activities

- * Principal developer (with D. Zupanski) of the 4DVAR data assimilation system for the NOAA/NCEP Eta-model
- * Principal developer (with D. Zupanski) of the Maximum Likelihood Ensemble Filter (MLEF)
- * Member of the WRF Data Assimilation Science Team
- * Member of the NSF Science & Technology Center CMMAP Science Team
- * Co-Editor of the AGU Journal of Advances in Modeling Earth Systems (JAMES)

Recent Collaborators

(i) Collaborators

David Randall	Dept. Atmospheric Science /Colorado State University
Scott Denning	Dept. Atmospheric Science /Colorado State University
Mark DeMaria	NOAA/NESDIS/RAMM/Colorado State University
Sangmi Pallickara	Dept. Computer Science /Colorado State University
Dusanka Zupanski	Precision Wind, Inc.
Michael Navon	Florida State University
Sara Zhang	NASA Goddard Space Flight Center
Arthur Hou	NASA Goddard Space Flight Center
Stephen Lord	NOAA/NCEP/EMC
Min-Jeong Kim	CIRA/NOAA/JCSDA
Jason Otkin	CIMSS/University of Wisconsin, Madison
Seon-Ki Park	EWHA Womans University, Seoul, South Korea

(ii) Thesis Advisors

Yoshi Sasaki	University of Oklahoma
John McGinley	NOAA/ESRL

(iii) Postgraduate and graduate Scholars Sponsored

Steven Fletcher	CIRA/Colorado State University
Arif Albayrak	CIRA/Colorado State University
Biljana Orescanin	Dept. Atmospheric Science/Colorado State University
Man Zhang	CIRA/Colorado State University
Karina Apodaca	CIRA/Colorado State University