

Biographical Sketch for Milija Zupanski

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(Research URL <http://www.cira.colostate.edu/projects/ensemble>)

Professional Preparation

1980 B.S. in Meteorology, University of Belgrade, Serbia (Advisor: F. Mesinger)
1987 M.S. in Meteorology, University of Oklahoma (Advisor: Y. Sasaki)
1990 Ph.D. in Meteorology, University of Oklahoma (Advisor: Y. Sasaki)

Appointments

2016-present Lead, CIRA Data Assimilation Group
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 UCAR Visiting Scientist, NOAA/NCEP/EMC
1990-1992 UCAR Post-Doctoral Fellowship, NOAA/NCEP/EMC
1985-1990 Graduate Research Assistant, University of Oklahoma
1980-1985 Chief, Regional Radar Center, Hydro-meteorological Institute of Serbia, Yugoslavia

Honors and Awards

2011-Present CIRA Fellow
2012-2016 Outstanding Lecturer at EISDA, Ewha University, South Korea
2015 NASA Group Achievement Award

Synergistic Activities

- Principal developer (with D. Zupanski) of the 4DVAR data assimilation system for the NOAA/NCEP Eta-model
- Principal developer (with D. Zupanski and T. Vukicevic) of the 4DVAR data assimilation system for the CSU RAMS model
- Principal developer (with D. Zupanski) of the Maximum Likelihood Ensemble Filter (MLEF)
- Member of the NSF Science & Technology Center CMMAP Science Team
- Advisor to ~20 graduate students (Colorado State Univ., Florida State Univ., Univ. Minnesota, JAMSTEC - Japan, Ewha Univ. - South Korea, Université Catholique de Louvain - Belgium)
- 30+ Invited Presentations and Lectures

Selected Research Publications

1. Zupanski, M., 2016: Reduced rank static error covariance for high-dimensional applications. *Int. J. Num. Meth. Fluids*, 83, 245–262 [DOI: 10.1002/flid.4264].
2. 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.
3. Zupanski, M., 2005: Maximum Likelihood Ensemble Filter: Theoretical Aspects. *Mon. Wea. Rev.*, 133, 1710– 1726.
4. 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.
5. 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.
6. 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.