KRISTIN HOYER JARMAN

Staff Scientist
Pacific Northwest National Laboratory

Employment

2001-present Senior Research Scientist, Statistics Group, Pacific Northwest National Laboratory, Richland, Washington

1998-2002 Research Scientist, Statistics Group, Pacific Northwest National Laboratory, Richland, Washington

1995-1998 Principal Mathematician/Statistician, Department of Research, Ohmeda Medical Systems, Louisville, Colorado

Ongoing Research Support

Multiple sensor data integration for chemical and biological threat detection and characterization:

- Department of Energy's Laboratory Directed Research and Development Program (chemical threat detection, GC-MS analysis for bio-agent exposure).
- Department of Homeland Security (ESI-MS assay development for detecting the presence of agar)
- Department of Defense (MALDI-MS, and microarray analysis of spent culture media)

Education

1995 Ph.D., Applied Probability and Statistics, Northwestern University

1991 M.S., Applied Mathematics, Northwestern University

1989 B.A., Mathematics, University of Colorado/Boulder

Honors and Professional Service

2004 Member*, National Academy of Sciences Expert Panel on Microbial Forensics*, to determine national needs and capabilities in biopathogen detection, June 2004.

2001-present Member, Editorial Review Board, *Chemometrics and Intelligent Laboratory Systems*, Elsevier

1999-2001 Chairperson, Statistics in Chemistry Award Committee, American Statistical Association

1998-2003 Member, Statistics in Chemistry Award Committee, American Statistical Association

1995-Present Member, American Statistical Association

Selected Peer-Reviewed Publications

1. **KH Jarman**, "Data Reduction and Integrated Microbial Forensics", Appearing in *Chemical and Physical Signatures for Microbial Forensics*, Humana Press, Inc., *In press.*

2. **KH Jarman**, HW Kreuzer-Martin, DS Wunschel, NB Valentine, JB Cliff, CE Petersen, HA Colburn, and KL Wahl, "Bayesian Integrated Microbial Forensics", *Applied and Environmental Microbiology* 74(11):3573-3582.Wunschel SC, Schauki D, Nelson CC, Jackman J, White E, **Jarman KH**, Petersen CE, Valentine NB and Wahl KL. "Inter-laboratory Comparison Study of Bacterial Analysis by MALDI-TOF Mass Spectrometry". *Journal of the American Society for Mass Spectrometry*. 16(4):456.

3. **KH Jarman**, DS Daly, KK Anderson, KL Wahl, "A New Approach to Automated Peak Detection", Chemom. Intell. Lab. Sys., 69, pp 61-76, 2003.

4. SC Wunschel, NB Valentine, CE Petersen, MT Kingsley, KA Zartolas, AJ Saenz, **KH Jarman**, KL Wahl, "Analysis of Microbial Mixtures by MALDI time-of-flight Mass Spectrometry." Anal. Chem, 2002, 74 (24), 5191-6199.

5. **KH Jarman**, ST Cebula, AJ Saenz, CE Petersen, NB Valentine, MT Kingsley, Kl Wahl, "An Algorithm for Automated Bacterial Identification Using Matrix-Assisted Laser Desorption Ionization Mass Spectromatry", Anal. Chem. 2000, 72, (6), 1217-1223.

6. **KH Jarman**, DS Daly, CE Petersen, AJ Saenz, NB Valentine, KL Wahl, "A Method for Constructing and Visualizing Matrix-Assisted Laser Desorption Ionization Fingerprints", Rapid Commun. Mass Spectrom. **1999,** 13, 1586-1594.