# BIOGRAPHICAL SKETCH: SCOTT KORANDA


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**Professional Preparation:**

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| B.A. Physics | University of Wisconsin-Milwaukee | 1990 |
| M.S. Physics | University of Wisconsin-Milwaukee | 1992 |
| Ph.D. Physics | University of Wisconsin-Milwaukee | 1995 |
| Postdoctoral Researcher | Case Western Reserve University (Physics Dept.) | 1995-1996 |

**Appointments:**

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| 2007-Present | Senior Scientist, University of Wisconsin-Milwaukee |
| 2005-2007 | Solutions Architect, Univa Corporation (Lisle, Illinois) |
| 2001-2005 | Associate Scientist, University of Wisconsin-Milwaukee |
| 1999-2001 | Computational Scientist, National Center for Supercomputing Applications, University of Illinois at Urbana-Champaign |
| 1996-1999 | Scientific Assistant, Wolfram Research (Champaign, Illinois) |

**Closely Related Publications:**


1. A. Chervenak, R. Schuler, C. Kesselman, S. Koranda, B. Moe, "*Wide area data replication for scientific collaborations*", Proceedings of 6th IEEE/ACM Int'l Workshop on Grid Computing (Grid2005), November 2005.

2. G. Singh, E. Deelman, G. Mehta, K. Vahi, M. Su, G Berriman, J. Good, J. Jacob, D. Katz, A. Lazzarini, K. Blackburn, S. Koranda, "*The Pegasus portal: web based grid computing*", Proceedings of the 2005 ACM symposium on Applied computing, 2005, pp. 680-686.

3. E. Deelman, J. Blythe, Y. Gil, C. Kesselman, S. Koranda, A. Lazzarini, G. Mehta, M. A. Papa, K. Vahi, "*Pegasus and the Pulsar Search: From Metadata to Execution on the Grid*", Lecture Notes in Computer Science **3019**, Berlin, Germany : Springer-Verlag, 2004, pp. 821-830.

4. E. Deelman, C. Kesselman, S. Koranda, K. Blackburn A. Lazzarini, and R. Williams, "*Applications of Virtual Data in the LIGO Experiment*", Proceedings of the International Conference on Parallel Processing and Applied Mathematics, Naleczow, Poland, September 2001,and Lecture Notes in Computer Science **2328**, Berlin, Germany : Springer-Verlag, 2002, xix+915, pp. 23-34.

5. Deelman E, Kesselman C, Mehta G, Meshkat L, Pearlman L, Blackburn JK, Ehrens P, Lazzarini A, Williams R, Koranda S, "*GriPhyN and LIGO, Building a Virtual Data Grid for Gravitational Wave Scientists*", Proc. of 11th IEEE International Symposium on High Performance Distributed Computing, 2002, HPDC-11, pp 225-234.


**Significant publications:**


1. B. Abbott, et. al. (LIGO Scientific Collaboration authors), "*Search for gravitational waves from binary black-hole inspirals in LIGO data.*", Phys. Rev. D 73 (2006) 062001.

2. B. Abbott, et. al. (LIGO Scientific Collaboration authors), "*Joint LIGO and TAMA300 Search for Gravitational Waves from Inspiralling Neutron Star Binaries.*", Phys. Rev. D 73 (2006) 102002.

3. B. Abbott, et. al. (LIGO Scientific Collaboration authors), "*Limits on gravitational wave emission from selected pulsars using LIGO data.*", Phys. Rev. Lett. 94 (2005) 181103.

4. B. Abbott, et. al. (LIGO Scientific Collaboration authors), "*Search for gravitational waves from primordial black hole binary coalescences in the galactic halo.*", Phys. Rev. D 72 (2005) 082002.

5. B. Abbott, et. al. (LIGO Scientific Collaboration authors), "*Search for gravitational waves from galactic and extra-galactic binary neutron stars.*", Phys. Rev. D 72 (2005) 082001.

**Synergistic Activities**

- Led the technical effort to create the LIGO Data Grid, the combination of LIGO Scientific Collaboration (LSC) computational and data storage resources with grid and distributed computing middleware to create a coherent and uniform LSC data analysis environment. `http://www.lsc-group.phys.uwm.edu/lscdatagrid`
- Designed, developed, and deployed the LIGO Data Replicator (LDR) for replication of gravitational wave data to compute sites within the LIGO Data Grid. `http://www.lsc-group.phys.uwm.edu/LDR`
- Member of the Grid2003 Taskforce responsible for deploying Grid3, a coordinated project between iVDGL, GriPhyN, PPDG, and the physics experiments. Grid2003 was a project to build a Grid environment to provide the next phase of the iVDGL laboratory and a platform for computer science technology demonstrators. It served as the direct ancestor to today's Open Science Grid. `http://www.ivdgl.org/grid2003`
- Past member of the DOEGrids Certificate Authority (CA) Policy Management Authority responsible for design and oversight of the CA policy. The DOEGrids CA is a fundamental piece of the Public Key Infrastructure (PKI) developed and deployed as part of the iVDGL, GriPhyN, Grid2003, OSG, and LIGO Data Grid projects. `http://www.doegrids.org/`

**Collaborators during the past 48 months:**
Co-authors listed above (and in particular the members of the LIGO Scientific Collaboration who are authors of the references listed as Abbott et al. above). Work most closely with Bruce Allen (UWM), Stuart Anderson (CIT), Warren Anderson (UWM), Patrick Brady (UWM), Ann Chervenak (ISI), Jolien Creighton (UWM), Ewa Deelman (ISI), Sam Finn (PSU), Steffen Grunewald (AEI), Xavier Siemens (UWM),Alan Wiseman (UWM). Other collaborators include, Ian Foster (Chicago), Miron Livny (Wisc), Ruth Pordes (FNAL), Alain Roy (Wisc).

**Ph.D. and post-doctoral advisors**
Bruce Allen (Thesis Advisor, University of Wisconsin-Milwaukee), Lawrence Krauss (CWRU).