BRIAN L. ENKE (June 2013)

Education
M.S. Computer Science, Northwestern University, Evanston, Illinois, 1996.
MS Project: Implementation of Minimum Diameter Spanning Tree Algorithms.
B.S. Computer Science, North Central College, Naperville, Illinois, 1990.
A.A.S Computer Science, Lewis & Clark Community College, Godfrey, Illinois, 1984.

Brief Biography
Mr. Enke has designed or applied geometric algorithms and software tools (SPH and N-body codes) that simulate asteroid collisions/impacts and formation of binary asteroid systems under NASA's Applied Information Systems Research Program. He also developed production pipelines for reducing asteroid near-infrared spectra and studying Pluto photometry, and he organizes and analyzes observational data for NASA/NSF Planetary Astronomy Programs on asteroid imaging. In conjunction with the NASA-JPL Machine Learning Group, he has developed several artificial-intelligence analysis tools useful in analyzing crater data on asteroid/planetary surfaces. He has also worked on several image processing projects under NASA's Lunar Science Institute and the Outer Planets Research, NEAR Data Analysis, and Mars Data Analysis Programs.

Employment History
2007-present: Senior Research Analyst, Southwest Research Institute, Dept. of Space Studies, Boulder, CO
2002-2007: Research Analyst, Southwest Research Institute, Dept. of Space Studies, Boulder, CO
2001-2002: Independent Software Consultant, Nederland, CO
1984-2001: Member of Technical Staff, Bell Laboratories, 5ESS International Switching Systems Division, Naperville, IL

Activities, Honors, and Awards:
Member: AIAA, IEEE, National Space Society, Mars Society, MarsDrive Consortium, 4Frontiers, Mars-One
Author: Shadows of Medusa, *PublishAmerica* (2005). Tales from the Martian Frontier, *Amazon* (2012)
Journalist: Denver Space Industry Examiner (2009)
NASA Certificate of Recognition (2006): Autonomous Knowledge Discovery from Simulators

Relevant Publications:
W. J. Merline, H. A. Weaver, P. M. Tamblyn, C. Neyman, S. A. Stern, B. Carry, J. R. Spencer, A. R. Conrad, M. A. Showalter, C. B. Olkin, A. J. Steffl, S. S. Sheppard, M. W. Buie, B. L. Enke. A Keck Search for Faint Satellites of Pluto in Support of New Horizons. *American Astronomical Society DPS*, **44** (2012).

W. J. Merline, J. D. Drummond, P. M. Tamblyn, C. Neyman, B. Carry, A. R. Conrad, C. R. Chapman, J. C. Christou, C. Dumas, B. L. Enke. Keck Adaptive-Optics Imaging of Near-Earth Asteroid 2005_YU55 During its 2011 Close Flyby. *Asteroids, Comets, Meteors 2012*, **1667** (2012)

Paula G. Benavidez, Daniel D. Durda, Brian L. Enke, William F. Bottke, David Nesvorny, Derek C. Richardson, erik Asphaug, William J. Merline. A comparison between rubble-pile and monolithic targets in impact simulations: Application to asteroid satellites and family size distributions. Icarus **219**, 57-76 (2012).

D. D. Durda, B. L. Enke, W. J. Merline, D. C. Richardson, E Asphaug, and W. F. Bottke. Comparing the Properties of Observed Main-Belt Asteroid Binaries and Modeled Escaping Ejecta Binaries (EEBs) from Numerical Simulations. *Proc Lunar & Planetary Sci. Conf.* **41,** 2558 (2010).

C. R. Chapman, B. Enke, W. J. Merline, P. Tamblyn, D. Nesvorny, E. F. Young, C. Olkin. Young Asteroid 832 Karin Shows No Rotational Spectral Variations. *Icarus* **191:** 323-329 (2007).

Daniel D. Durda, William F. Bottke Jr., David Nesvorny, Brian L. Enke, William J. Merline, Erik Asphaug, and Derek C. Richardson. Size-Frequency Distributions of Fragments from SPH/N-Body Simulations of Asteroid Impacts: Comparison with Observed Asteroid Families. *Icarus* **186,** 498-516 (2007).

D. D. Durda, B. L. Enke, E. Asphaug, and D. C. Richardson. Examining the Formation of Satellites in Large Cratering Events via Numerical Simulations with Accurate Shape Models. *Proc Lunar & Planetary Sci. Conf.* **38,** 1742 (2007).

David Nesvorny, Brian L. Enke, William F. Bottke, Daniel D. Durda, Erik Asphaug, and Derek C. Richardson. Karin Cluster Formation via Asteroid Impact. *Icarus* **183,** 296-311 (2006).