



JIHUI GENG, Ph.D.
Supervisor, BL Numerical Analysis / Senior Principal Scientist
BAKER ENGINEERING AND RISK CONSULTANTS, INC.

Education:	<p style="text-align: center;">Ph.D., Chemical Eng., Nanjing Univ. of Science and Technology M. Eng., Mechanical Eng., Univ. of Science and Technology of China B. Eng., Mechanical Eng., National University of Defense Technology</p>
Areas of Practice:	<p>Dr. Geng works at BakerRisk's San Antonio office in the Blast Effects Group. His work at BakerRisk focuses on research and development of 3-D CFD (computational fluid dynamics) code and visualization systems capable of simulating generation and propagation of blast and shock waves and their interaction with structures or buildings. Dr. Geng successfully developed a robust three-dimensional computational fluid dynamics code, BWTI[®] (Blast Wave-Target Interaction), which is routinely used in project work for BakerRisk.</p>
Experience:	<ul style="list-style-type: none">• Has over 25 years of experience in testing and simulating reacting flows related to risk assessment for industries.• Developed BakerRisk's BWTI[®] CFD code, which is capable of modeling the blast waves generated from vapor cloud explosions, bursting pressure vessels, and high explosives, and models the interaction of these waves with complex physical structures (e.g., building groups).• Dr. Geng has extensive experience in FLACS dispersion and blast evaluations, managing and performing numerous FLACS simulations for offshore platforms and onshore plants/modules.• Experienced in a wide variety of commercial CFD tools, including FLUENT, PHOENICS, FDS and OpenFOAM.• As a Professor at Nanjing University of Science and Technology, he managed a number of projects, focusing on the simulation of unsteady flows with moving components.<ul style="list-style-type: none">○ Developed object-oriented 3D and 2D codes and visualization systems for application to flow-structure interactions, industrial explosions, detonation phenomena, and thermal and multiphase reacting flows.○ Taught several mechanical engineering courses in the areas of gas dynamics, computational fluid dynamics, and combustion.• As an AvH (Alexander von Humboldt) research fellow at the Aachen University of Technology in Germany (1995-1997), Dr. Geng managed a project and conducted research in the field of multiphase reacting flow.
Professional Chronology:	<p>Aachen University of Technology (VW Research Fellow 1990-1992; AvH Research Fellow 1995-1997; Nanjing Univ of Science and Technology (Lecturer 1993-1994; Associate Professor 1998-2000; Professor 2001-2003); Baker Engineering & Risk Consultants, Inc. (Project II Scientist 2003-2005; Senior Scientist 2006-2008; Principal Scientist 2009-2014; Senior Principal Scientist 2015-present; Blast Section CFD Team Leader 2009-present)</p>
Professional Memberships:	<ul style="list-style-type: none">• Member of AvH (Alexander von Humboldt) Foundation, Germany• Member of American Society of Mechanical Engineers (ASME)• Member of American Institute of Chemical Engineers (AIChE)