

Blackall Machine Tool and Gage Award

YINGGANG TIAN
YUNG C. SHIN

*Conferred at the International Manufacturing Science and Engineering Conference,
Atlanta, Ga., October 2007*

THE BLACKALL MACHINE TOOL AND GAGE AWARD was established in 1954 for the best paper or papers clearly concerned with, or related to the design or application of machine tools, gages or dimensional measuring instruments.

YINGGANG TIAN, Ph.D., senior research engineer, Saint-Gobain High-Performance Materials (Worcester, Mass.); and YUNG C. SHIN, Ph.D., professor, Purdue University, (West Lafayette, Ind.), for the paper "Thermal Modeling for Laser-Assisted Machining of Silicon Nitride Ceramics with Complex Features."

Dr. Tian is a senior research engineer at the Northborough-Worcester Research and Development Center of Saint-Gobain High-Performance Materials (Worcester, Mass.). Currently, his major responsibility is to explore and develop new surface preparation technologies.

Tian joined Saint-Gobain in 2006 following completion of his doctoral studies, which focused on laser-assisted machining (LAM) of advanced ceramics. Among his accomplishments, Tian developed a thermal model for LAM of a workpiece with complex features, established an in-process control method to achieve optimal conditions for LAM and conducted a finite element analysis of the chip formation in LAM of silicon nitride. He also investigated other laser-based manufacturing technologies, such as laser-assisted dressing of superabrasive grinding wheels and laser-assisted burnishing of metals.

He is a member of ASME.

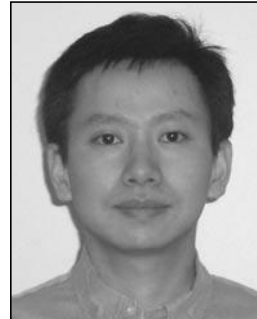
Tian received his bachelor's and master's degrees at Tsinghua University, Beijing, in 1998 and 2001, respectively. He earned his Ph.D. in mechanical engineering at Purdue University (West Lafayette, Ind.) in 2006.

Dr. Shin joined Purdue University (West Lafayette, Ind.) in 1990 and is currently a professor of mechanical engineering. He also serves as chair of Systems, Measurement and Control in the School of Mechanical Engineering. Shin established the Center for Laser-Based Manufacturing in 2003, with support from the state of Indiana and industrial companies, and currently is serving as director.

His research areas include laser processing of materials, intelligent and adaptive control of manufacturing processes, dynamics of machine tools, high speed machining, machining of advanced materials, process monitoring and automation.

Previously, Shin was a senior project engineer at General Motors in Warren, Mich. (1984–88); and an assistant professor at Pennsylvania State University, University Park (1988–90).

Shin has authored over 200 publications in archived journals and refereed conference proceedings, and chapters in several engineering handbooks; and has co-edited two books. He has organized/co-organized many conferences and symposia, and he was the host and chair of the 30th North American Manufacturing Research Conference in 2002.



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Blackall Machine Tool and Gage Award (cont.)

As ASME member, he has been serving as associate editor of the *Journal of Manufacturing Science and Engineering* since 2001, and was voted Best Reviewer in 1995 and 2001. He has been session co-chair and chair for symposia at various meetings and Congresses.

Shin is also a member of the Society of Manufacturing Engineers (SME), the North American Manufacturing Research Institution, the American Society for Engineering Education and Sigma Xi. His honors include SME's Manufacturing LEAD Award (1997), listings in *Who's Who* publications, Purdue University's Seeds of Excellence Award (2005) and the Best Paper Award at the 3rd Annual International Conference on Cybernetics and Information Technologies, Systems and Applications.

Shin received his bachelor's degree at Seoul National University, South Korea, in 1976; and his master's degree at the Korea Advanced Institute of Science, Seoul, in 1978. He earned his Ph.D. in mechanical engineering at the University of Wisconsin-Madison in 1984.

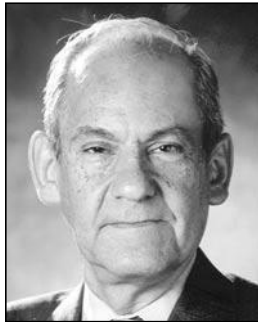
Per Bruel Gold Medal for Noise Control and Acoustics

JERRY H. GINSBERG

*Conferral at the President's Luncheon,
2007 International Mechanical Engineering Congress and Exposition*

THE PER BRUEL GOLD MEDAL FOR NOISE CONTROL AND ACOUSTICS was established in honor of Dr. Per Bruel, who pioneered the development of sophisticated noise and vibration measuring and processing equipment. The medal recognizes eminent achievement and extraordinary merit in the field of noise control and acoustics, including useful applications of the principles of noise control and acoustics to the art and science of mechanical engineering.

JERRY H. GINSBERG, E.Sc.D., George W. Woodruff chair and professor, Georgia Institute of Technology, Atlanta, *for significant contributions as a scientist in the areas of sound-structure interactions and vibration of complex systems; and as an educator, for outstanding mentoring and for authoring a series of seminal textbooks on engineering dynamics for both engineering educators and practitioners.*



Dr. Ginsberg joined the Georgia Institute of Technology, Atlanta, in 1980 as a professor in the George W. Woodruff School of Mechanical Engineering. He was awarded the George W. Woodruff chair in mechanical systems in 1989.

In addition to being a skilled classroom teacher, a dedicated mentor to his graduate students and the junior faculty and a renowned author, Ginsburg is a prolific research scientist. His research areas are structural vibrations and acoustics, dynamics, modal identification and turbomachinery diagnostics. From September 2004 to June 2005, he served on the Independent Technology Assessment Panel for NASA's Project Sofia (Stratospheric Observatory for Infrared Astronomy), where he provided the primary technical analysis assessing

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