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## **ZONGLIN JIANG WINS AIAA 2016 GROUND TESTING AWARD**

*Honored for Work on World's Largest Shock Tunnel*

March 29, 2016 – Reston, Va. – Zonglin Jiang, an American Institute of Aeronautics and Astronautics (AIAA) Associate Fellow, and professor and director of the State Key Laboratory of High-Temperature Gas Dynamics at the Institute of Mechanics of the Chinese Academy of Sciences, Beijing, People's Republic of China, has won the AIAA 2016 Ground Testing Award. Jiang will receive the award at a noon awards luncheon on June 14, as part of the AIAA Aviation and Aeronautics Forum and Exposition 2016 (AIAA AVIATION 2016), June 13–17, at the Washington Hilton, Washington, D.C.

The award honors Jiang's "skillful leadership in conceiving, developing and successful commissioning of the world's largest shock tunnel capable of true hypersonic flight simulation."

"We have dedicated ourselves to the theory and techniques of the advanced hypersonic test facilities for 15 years, and finally the techniques of duplicating hypersonic flight conditions on the ground are established and the shock tunnel JF12 is developed," said Jiang. "It is a great honor to be selected as the winner of the AIAA Ground Testing Award for 2016. This gives us great encouragement. Our team will make the most use of this advanced hypersonic test facility and we believe that any progress in this discipline could be helpful to pave the way toward the goal of flying faster, higher and further."

Jiang's work has advanced the state of the art in large-scale hypersonic test facilities, which are necessary to test air vehicles at speeds above Mach 5. Jiang and his team created a hypervelocity detonation-drive shock tunnel capable of duplicating flight conditions at speeds ranging from Mach 5 to Mach 9 at altitudes between 20 and 50 kilometers. Jiang's design uses no moving parts and generates a longer test-duration and a higher energy flow than more traditionally designed tunnels. Jiang's other work has included proposing a new concept for shock drag reduction and thermal protection known as the non-ablative and actively controllable TPS concept, which provides better protection to the vehicle's body as it travels through the air. Jiang is also responsible for developing a dispersion-controlled condition, which allowed the creation of the dispersion-controlled dissipative scheme that has been widely applied throughout hypersonic testing platforms.

Jiang is a member of AIAA's Propellants and Combustion Technical Committee, a fellow of the International Shockwave Institute, vice president of the International Shockwave Institute, and president of the Chinese Society of Shock Waves. Jiang is also an editor of the journal *Acta Mechanica Sinica*.

Established in 1975, the AIAA Ground Testing Award recognizes outstanding achievement in the development or effective utilization of technology, procedures, facilities, or modeling techniques for flight simulation, space simulation, propulsion testing, aerodynamic testing, or other ground testing associated with aeronautics and astronautics.

For more information about the AIAA Ground Testing Award, or the AIAA Honors and Awards program, please contact Carol Stewart at [carols@aiaa.org](mailto:carols@aiaa.org) or 703.264.7538.

### **About AIAA**

AIAA is the world's largest aerospace professional society, serving a diverse range of more than 30,000 individual members from 88 countries, and 95 corporate members. AIAA members help make the world safer, more connected, more accessible, and more prosperous. For more information, visit [www.aiaa.org](http://www.aiaa.org), or follow us on Twitter @AIAA.

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