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Prof. Liang Guozhu BEng (1987) and MSc (1990) in *Solid Rocket Motor Design*, and PH.D. (2000) in *Aerospace Propulsion Theory and Engineering* from Beijing University of Aeronautics and Astronautics (BUAA). He was promoted to associated professor in 1995 and to full professor in 2002 in the Department of Aerospace Propulsion, School of Astronautics, BUAA. His research interests cover a wide spectrum of topical areas focusing on combustion, flow, heat transfer, and design for chemical rocket propulsion, and tank pressurization feed system dynamics for launch vehicles. He supervises domestic and foreign M.S. and PH.D. students in the field of rocket propulsion. He is the author or co-author of more than 150 technical papers and was the recipient of several teaching and research awards from government organizations. At present, He is Vice-Chairman of China Aerospace Propulsion Technology Information Society and Associate Editor-in-Chief of Chinese Journal of Propulsion Technology.

Title of presentation: **Prediction of solid rocket motor ignition startup process.**

Abstract: Rapid and reliable ignition of the solid rocket motor (SRM) is a prerequisite for the normal operation of the engine. Accurate prediction of the interior ballistic curve in the startup process of a SRM is an important part of engine design and performance prediction. This study establishes a methodology integrating theoretical analysis and numerical simulation to explore the ignition startup process. The developed zero-dimensional and one-dimensional interior ballistics calculation methods for the engine ignition startup phase lay a theoretical foundation for the design of ignition devices of SRMs.