

WILLIAM D. BACHALO



Dr. Bachalo was awarded a Ph.D. degree from the University of California at Berkeley in Mechanical Engineering specializing in Aerospace Sciences. He is currently President and CEO of Artium Technologies Inc., a company he co-founded in 1998 with the goal of developing instruments for fluid mechanics based on LDV methods, spray and aerosol characterization, cloud and atmospheric research, and aircraft icing research based on the phase Doppler interferometry technology and innovative imaging methods. His team has also developed Laser-induced Incandescence (LII) based instrumentation for soot or black carbon nonvolatile particulate (nvPM) emissions measurement.

From 1981 to 1996, Dr. Bachalo founded and was president and CEO of Aerometrics, Inc. His company focused on his invention of the phase Doppler instrument and its development into a commercial product, the Phase Doppler Particle Analyzer (PDPA). Research and development projects involving other innovative diagnostic developments were also conducted at his company. The research and development team not only developed instruments but applied them to in-house aerodynamics and combustion research programs. During this period, he and his team won the international Tanasawa Award twice and the Marshal Award twice. More recently, he received the Lefebvre Award in recognition of his work in spray instrumentation and technology innovation and development.

From 1974 to 1976, he was a National Research Council associate conducting research at the NASA Ames Research Center on transonic and supersonic turbulent boundary layer separation. To facilitate his research goals, he helped pioneer and developed Laser Doppler velocimetry and holographic interferometry techniques for measuring high-speed compressible flows. His experimental data on transonic and supersonic turbulent separated flows continue to be used to the present day for computational fluid dynamics (CFD) development and validation. From 1976 to 1980, he was Director of Engineering at Spectron Development Laboratories, Inc. where he led a team of researchers involved in instrumentation development and research in fluid mechanics and spray combustion.

Dr. Bachalo has co-authored more than 150 technical papers, has written numerous book chapters, and has been awarded over 15 patents.