



FOR IMMEDIATE RELEASE

AnalySwift Sponsors SAMPE 2023 Student Bridge and Fuselage Contests

Offers Students Free Access to Composite Simulation Software

West Lafayette, Indiana (USA), February 15, 2023- [AnalySwift, LLC](#), a provider of efficient high-fidelity modeling software for composites and other advanced materials, announced today its sponsorship of the SAMPE 2023 Student Bridge Contest and Student Fuselage Contest.

Hosted by [SAMPE \(Society for the Advancement of Material and Process Engineering\)](#), the Student Bridge Contest allows students to design, build, and test a miniature structural bridge using various composite materials in accordance with a set of well-defined rules. Students design and build a composites bridge using an assortment of pultrusions, cores, fabrics and other materials supplied to them in kit form. The Student Fuselage Contest offers students the opportunity to design and build a composite fuselage using an assortment of fiberglass, Phenolic Honeycomb core, and resin-filling core. The contests provide several benefits to participating students, namely, putting their composites training into action, representing their college or university, and resume-building. Furthermore, this is an international competition involving schools from around the globe. Winners receive monetary prizes and a contest trophy.

“With participation worldwide, these contests are an excellent opportunity for students interested in pursuing a career in advanced composites,” said Allan Wood, president & CEO of AnalySwift. “AnalySwift is pleased to offer student teams free access to the VABS composite simulation software for the Student Bridge Contest and SwiftComp for the Student Fuselage Contest.”

“VABS helps accelerate students’ design and analysis with its rigorous modeling of slender composite structures, such as bridges,” continued Wood. “For instance, VABS quickly calculates accurate bending stiffness, neutral axis, extension stiffness, failure index, and strength ratios. Students can use VABS on a typical laptop computer to calculate the ply-level details with the accuracy of 3D FEA in seconds. SwiftComp, on the other hand, is a general-purpose, truly multiscale modeling code for composites. It directly and seamlessly links detailed microstructure and structural behavior for composite structures including beams, plates/shells, and 3D structures.”

This will be the 24th year SAMPE has hosted the events, which will be held April 19, 2023, at the [SAMPE 2023 Conference & Exhibition](#) in Seattle, Washington. For more information on the contests, including how student teams can access the VABS or SwiftComp software, please visit the [SAMPE Student Bridge Contest webpage](#) and the [SAMPE Student Fuselage Contest webpage](#), respectively.

“VABS is capable of rigorously reducing an original 3D slender solid with complex cross-sections into a simple engineering beam model,” according to Dr. Wenbin Yu, CTO of AnalySwift. “With continuous development funded by the US Army and other agencies spanning over 30 years for performance and robustness, VABS’ accuracy has been extensively verified. Since the last contest, a new framework called iVABS is also available, which was developed by Purdue University with the support of the US Army. iVABS enables VABS in a user-friendly way for design and optimization, parametric studies, uncertainty quantifications, etc.”



Popular in the aerospace and wind industries for rotor blades, VABS is a general-purpose cross-sectional analysis tool for computing beam properties and recovering 3D stresses/strains of slender composite structures. It is a powerful tool for modeling composite helicopter, air mobility, and wind turbine rotor blades, as well as other slender composite structures, such as bridges, landing gear, propellers, high-aspect ratio wings, golf club shafts, fishing rods, columns, poles, shafts, and rods. Please visit the [VABS webpage](#) to learn more.

SwiftComp is a general-purpose multiscale modeling code that enables users to perform efficient and accurate modeling of composites and other advanced materials (metamaterials, architected materials, porous materials, tailorable composites etc.). It can be used either independently as a tool for virtual testing of composites or as a plugin to power conventional FEA codes with high-fidelity multiscale modeling for composites. Please visit the [SwiftComp webpage](#) to learn more.

About AnalySwift

AnalySwift, LLC is a provider of composite simulation software, which enables an unprecedented combination of efficiency and accuracy, including multiphysics structural and micromechanics modeling. Drawing on cutting edge university technology, AnalySwift's powerful solutions provide customers a competitive advantage through drastic reductions in engineering time, virtual testing earlier in the design process, and handling of more complex composite structures. Our technologies deliver the accuracy of detailed 3D FEA at the efficiency of simple engineering models, cutting analysis time by orders of magnitude. SwiftComp is licensed from Purdue Research Foundation. VABS is licensed from Utah State University, Georgia Institute of Technology, and Purdue University. Find out more at analyswift.com.

About SAMPE

The Society for the Advancement of Material and Process Engineering (SAMPE®), a global professional member society, provides enhanced educational opportunities by delivering information on new and advanced materials and processing technology. SAMPE provides growth and educational opportunities via conferences, exhibitions, technical forums, and publications. As the only technical society encompassing all fields of endeavor in materials and processes, SAMPE provides a unique and valuable forum for scientists, engineers, and academicians. SAMPE North America is a regional subsidiary of SAMPE that serves Canada, Mexico, and the United States.

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