WILLIAM & MARY
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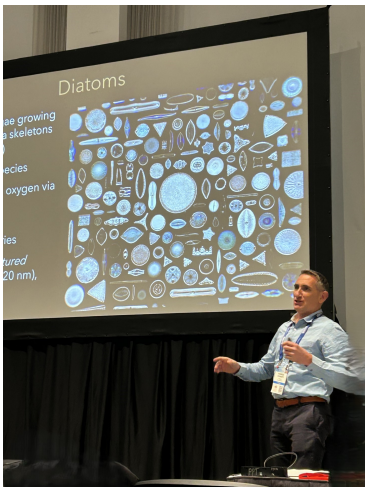
Applied Science

APPLIED SCIENCE PROFESSOR AND GRADUATE STUDENT PRESENT AT CONFERENCE



William & Mary's nano & biomaterials Lab, headed by Professor Hannes Schniepp, is set to make significant strides in the nanomechanics of spider silk. This will lead to the development of multi-functional high-performance materials of the next-generation inspired by nature.
Secondly, the nano & biomaterials lab is also investigating diatom biosilica exoskeletons in order to turn these into macroscopic materials (for example via 3D printing). Tests have demonstrated that these diatom-materials have a great potential for structural applications.

Professor Schniepp presented 2 papers at the Materials Research Science (MRS) Conference held in Boston, MA between Dec. 1-6, 2024. The first was completed in collaboration with his current graduate student Aidan Lucas and entitled: "Deeply Hierarchical, Multi-Functional Materials from Naturally Grown Biosilica". The second paper was in collaboration with Prof. Schniepp's previous PhD student Ben Skopic (W&M 2023) and was entitled: "Strong and Tough Tape-Based Quasi-Composites inspired by Spider Silk".

One of Professor Schniepp's current graduate students, Jake Siliman, presented their paper: "The Cribellate Nanofibrils of the Southern House Spider—Extremely Thin Natural Silks with Outstanding Extensibility".

Professor Schniepp's research is a key example of how research can be applied to real-world problems, highlighting the university's commitment to transformative research and education. Professor Schniepp's research aligns with the vision that William & Mary has moving forward: far-reaching sustainable impacts. These studies are some of the many research projects that will be the foundation of the new School of Computing, Data, Sciences, & Physics.


Prof. Hannes Schniepp


Aidan Lucas


Ben Skopic, PhD


Jake Silliman