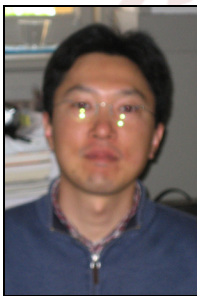


# STANFORD HPC SEMINAR SERIES



## Integrated Parallel Overset-Grid Simulation of Rotorcraft Flows Using CHIMPS

**MONDAY APRIL 20TH AT 12:00 PM.**



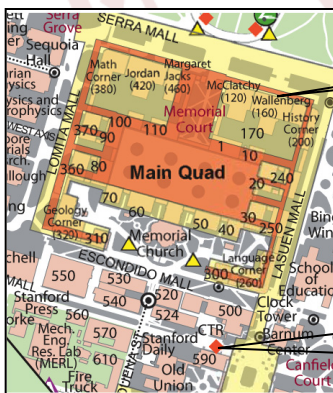
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Research Associate

Center for Turbulence Research

Stanford University/NASA Ames Research Center

One of the main challenges in rotorcraft CFD is to accurately predict near-blade transonic flows and far-wake tip vortices at the same time, because the artificial dissipation formulated for shock capturing can easily deteriorate the subsequent development of highly concentrated vortical structures. This difficulty can be overcome by using different flow solvers for near-blade and wake regions, respectively. In this talk, our computational framework for multi-code-integrated overset-grid rotorcraft simulations will be introduced. A particular emphasis will be placed on the software CHIMPS (Coupler for High-performance Integrated Multi-Physics Simulations), which highly facilitates multi-code coupling by automating the search, interpolation, communication, and hole-cutting procedures in a scalable and user-friendly manner.



Wallenberg Hall

**BE SURE TO JOIN US NEXT MONDAY APRIL 20TH  
12:00 PM @ WALLENBERG THEATER**

**(WALLENBERG HALL, BUILDING 160, MAIN QUAD)**

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Research (you are here)