WANG JUNYI

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EDUCATION

Nanjing University of Aeronautics and Astronautics (NUAA) 2011–2014
M.S. in Aerospace Science and Technology (Helicopter) GPA: 88/100
Thesis Title: "Research on Aeroelastic Response of Rotor with Swept Blade-Tip Based on CFD/CSD Coupling Method"

Nanjing University of Aeronautics and Astronautics 2007–2011
B.S. in Aircraft Design and Engineering GPA: 88/100

Royal Melbourne Institute of Technology Spring, 2010
Exchange Student in Aerospace Engineering GPA: 3.5/4.0

RESEARCH EXPERIENCE

Research Assistant 2011–2014
National Key Laboratory of Science and Technology on Rotorcraft Aeromechanics
College of Aerospace Engineering, NUAA

- **Grid Generation**: optimize blade grid generation for asymmetric airfoils and revise Cartesian grid generation for better rotor wake capturing;
- **CSD Analysis**: add advanced tip elements for complex blade-tip configuration analysis;
- **CFD/CSD Coupling**: enhance overset grid strategy and CFD solver and establish a fluid-structure coupling interface;
- **Aeroelasticity Analysis**: study the effect of coupling, structural and geometric parameters on aeroelastic characteristics;
- **Parallel Computing**: use OpenMP/MPI to accelerate CFD/CSD calculation process on Linux workstations.

JOURNAL PUBLICATIONS

1. Wang J., Zhao Q., Ma L., "Structural Parameter Analyses on Rotor Airloads with New Type Blade-Tip Based on CFD/CSD Coupling Method", *Trans. Nanjing Univ. Aero. Astro.*, vol.33, no.6, p.678-686, 2016. doi: 10.16356/j.1005-1120.2016.06.678

2. Wang J., Zhao Q., Ma L., Li P., "High-precision Prediction on Unsteady Aeroelastic Loads of Helicopter Rotors under Blade-vortex Interaction Condition", *Journal of Aerospace Power*, vol.30, no.5, p.1267-1274, 2015. doi: 10.13224/j.cnki.jasp.2015.05.031

3. Wang J., Zhao Q., Xiao Y., "Calculations on Aeroelastic Loads of Rotor with Advanced Blade-tip Based on CFD/CSD Coupling Method", *Acta Aeronautica et Astronautica Sinica*, vol.35, no.9, p.2426-2437, 2014. doi: 10.7527/S1000-6893.2013.0519

4. Wang B., Zhao Q., Xu G., Ye L., Wang J., "Numerical Analysis on Noise of Rotor with Unconventional Blade Tips Based on CFD/Kirchhoff Method", *Chinese Journal of Aeronautics*, vol.26, no.3, p.572-582, 2013. doi: 10.1016/j.cja.2013.04.045

CONFERENCE PAPERS

1. Wang J., "Air-to-Ground Reconnaissance/Strike Effectiveness Analysis on Unmanned Helicopter", *Proceedings of the 34th Chinese Rotorcraft Forum*, September, 2018.

2. Wang J., Zhao Q., Xiao Y., "Aeroelastic Characteristics Analysis of Helicopter Rotors Based on CFD/CSD Coupling Method", *Proceedings of the 2nd Asian/Australian Rotorcraft Forum the 4th International Basic Research Conference on Rotorcraft Technology*, September, 2013.

3. Wang J., Zhao Q., Xiao Y., "Rotor Airloads Prediction and Effect Analysis of Blade Structural Parameters Based on CFD/CSD Method", *Proceedings of the 29th Chinese Rotorcraft Forum*, August, 2013.

TEACHING EXPERIENCE

Teaching Assistant Spring, 2012
College of Aerospace Engineering, NUAA

- **Assist Graduation Design**: undergraduate student to study composite rotor blades using VABS with the title: "Optimization Analysis of Composite Blades Sectional Properties".

WORKING EXPERIENCE

Project Manager 2014–Present
Helicopter Department, Product Management Division
China National Aero-Technology Import & Export Corporation

- **Unmanned Helicopter Development**: 300/500kg VTOL UAV including market demand analysis, effectiveness analysis, weapon system integration, flight test, live fire test, etc.;
- **UAV Field Service**: MAME UAV on-site service in Middle East, including system operation, maintenance, technical update, training, logistics, etc.;
- **Helicopter Management**: configuration management and two helicopter projects to Africa including procurement, production, quality control, flight test, delivery, etc.;
- **Torpedo Management**: heliborne torpedo project to South America including on-site survey, production, quality control, lake trial test, delivery, ASW system integration, etc.;

HONORS AND AWARDS

National Scholarship	2008
NUAA Scholarship	2007–2011
Outstanding Master Thesis	2014
Outstanding Graduate Student	2014
Excellent Employee	2016

COMPUTER SKILLS

Programming:	Fortran, C/C++, Matlab, Python
Operating system:	Linux, Windows
Modeling/analysis:	Catia, Patran/Nastran, Adams, Fluent
Post-processing:	Tecplot, Origin
Technical writing:	Latex, Microsoft Word

STANDARD TESTS

GRE: V160+Q169+AW4.0 **TOEFL**: 104