



Deutsches Zentrum  
für Luft- und Raumfahrt e.V.  
in der Helmholtz-Gemeinschaft

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# DAAD

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## DLR – DAAD – Fellowships

### Fellowship - No. 5

Applicants are invited from: **United States of America, Canada, EU**

<b>Research Area</b>	Space
<b>Research Topic</b>	Interactive Techniques and Methods for the Spacecraft Design Process in Virtual Environments
<b>DLR Institute</b>	Simulation and Software Technology
<b>Position</b>	Postdoctoral Fellow
<b>Openings</b>	1
<b>Job Specification</b>	The successful candidate will work on a software framework that aims at the analysis of the whole design process of spacecrafts (particularly satellites) under consideration of different disciplines. For the evaluation and optimization of virtual prototypes, virtual reality techniques are to be used to visualize kinematics aspects interactively. Superimposed with scientific simulation results, the system is supposed to offer means to reveal the impact of individual modules on other parts of the spacecraft. The findings can then be used in collaborative environments for interdisciplinary discussions in order to reduce time and iterations for design studies and to avoid ignoring interdependencies.
<b>Required Qualification</b>	We are seeking strongly motivated and highly qualified candidates having profound analytical, programming and theoretical skills. The applicant should hold a doctoral degree in Computer Science, Electrical Engineering, Mechanical Engineering, or similar discipline. Applicants must be able to develop object-oriented software in C++ and are expected to have experience and interest in Software Engineering, interactive techniques for immersive environments, Scientific Visualization, and Computer Graphics.
<b>Advantageous Skills</b>	Experience in Computational Fluid Dynamics (CFD) post-processing or similar fields, preferably with the Visualization Toolkit VTK, virtual assembly processes, constraint-based computer aided modeling, and programming under LINUX

would be advantageous.

**English competence**      Fluent in spoken and written English

**Earliest Start Date**      April, 2009

**Application Deadline**      Open until filled

**Further Information:**      <http://www.dlr.de>  
   <http://www.daad.de>