



2021 ALTAIR STUDENT WEBINAR SERIES – GETTING STARTED

Jan Grasmannsdorf – Account Manager Academic Markets

Altair Student Webinar Series – Getting Started

Speaker Profile

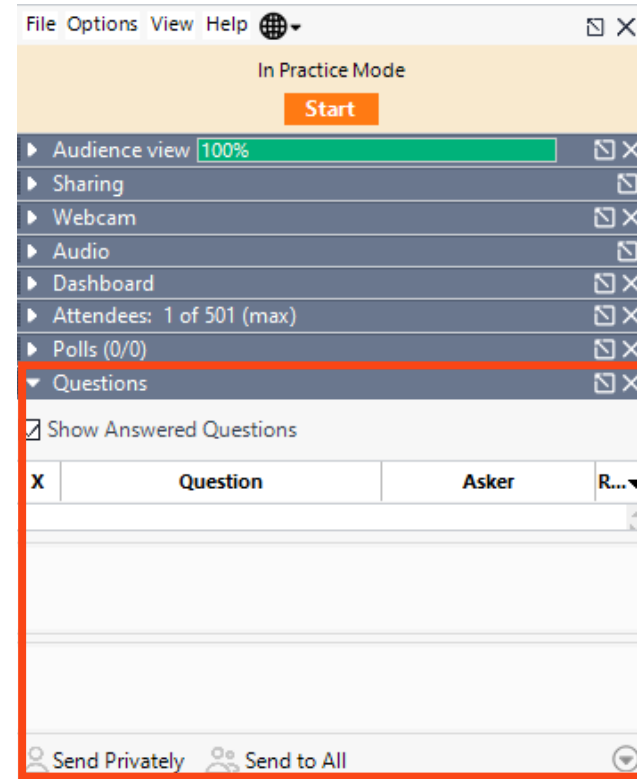
- Graduated from DHBW Stuttgart in 2001 with a bachelor in mechanical engineering
- Master degree in Business and Engineering 2002 from Steinbeis University Berlin
- 2002 - 2007: Application Engineer at Altair Germany
- 2007 – 2010: Project Engineer at Helbling Technik / Switzerland
- Since 2010: Account Manager at Altair Germany



GoTo Webinar - Overview

About the Webinar Interface

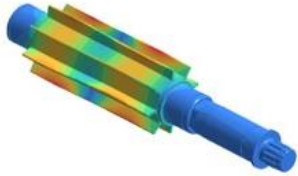
- You can follow the Webinar in the GoTo Webinar environment
- Please note that you will be muted throughout the whole session
- To post questions, please use the **„Question“** Tab of the webinar window – we will address your question in this window or live during the Q&A after each presentation
- The demo recordings and model files will be made available after the webinar.



Frequency response analysis

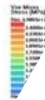
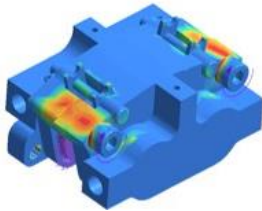
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SIMSOLID



Structural analysis with contact and pretension

SIMSOLID



Lots of saved time during design phase due to SimSolid



WHZ Racing Team Zwickau – 2019/20





A-Arm Bracket
with Solid Thinking Inspire



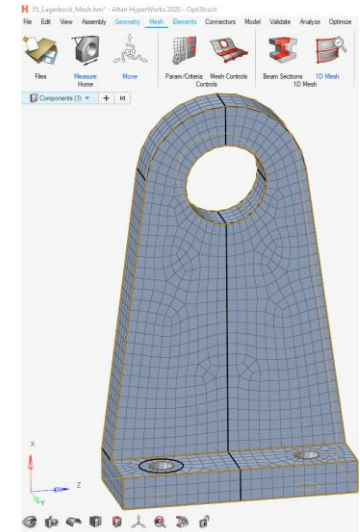
Inspire with it's easy to use and fast optimization tools allows us to get small parts like this, a simple bracket, to a high standard of weight saving design. Without months of work and weeks of training sessions.

Formula Student Team Weingarten – 2019/20

How to practice with the demo files?

www.altairuniversity.com

- Get access to the free Altair Student Edition
- Or request a Sponsorship license for your team
- Download Free E-Books
- Access all demo recordings and files to start



Altair – Academic License

- Altair Units License - Floating network license includes ALL Altair software
- Includes additional software from partners
- Can be accessed via free Altair Student Edition: <https://studentedition.altair.com>
- Or via campus license
- Or request a sponsoring package for your team:
<https://altairuniversity.com/sponsorshipapp/>

The Golden Altair Units Ticket



SELF-BALANCING SCOOTER PROJECT

Electric
Drive Design

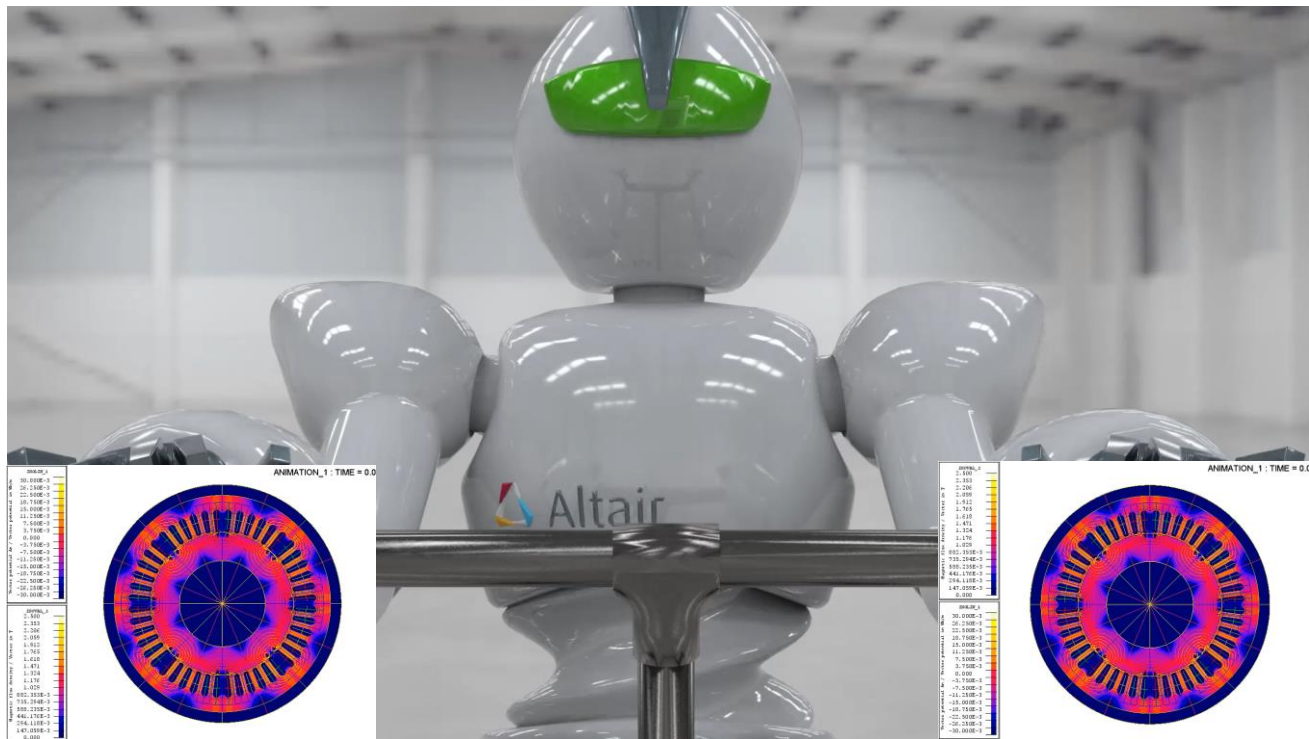
Optimization

Mechanical &
Structural

Control
System
Design

Dashboard &
Data
Analytics

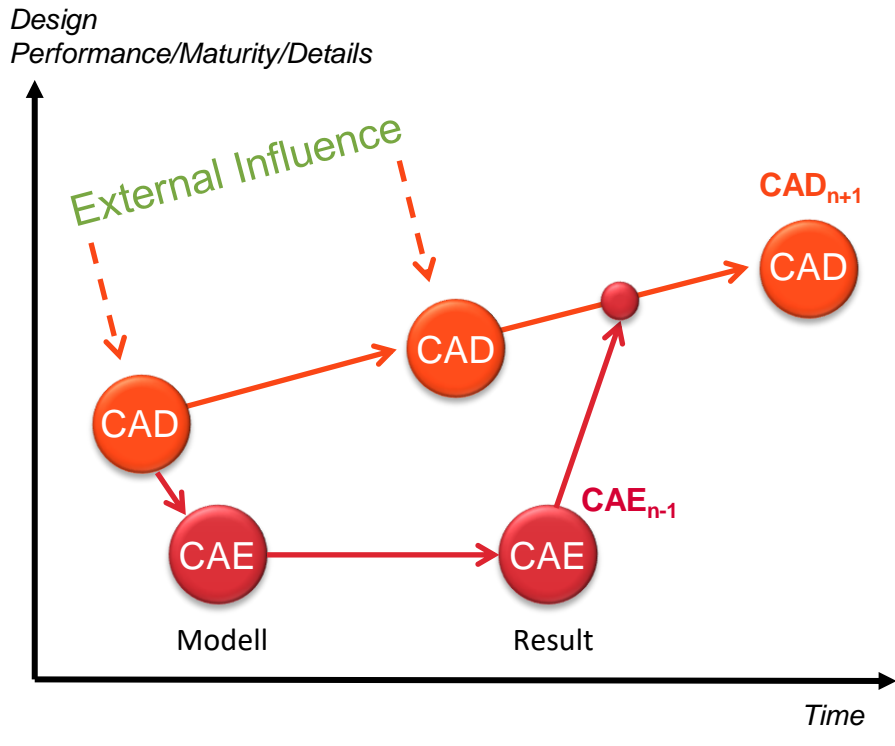
Thermal &
Fluids



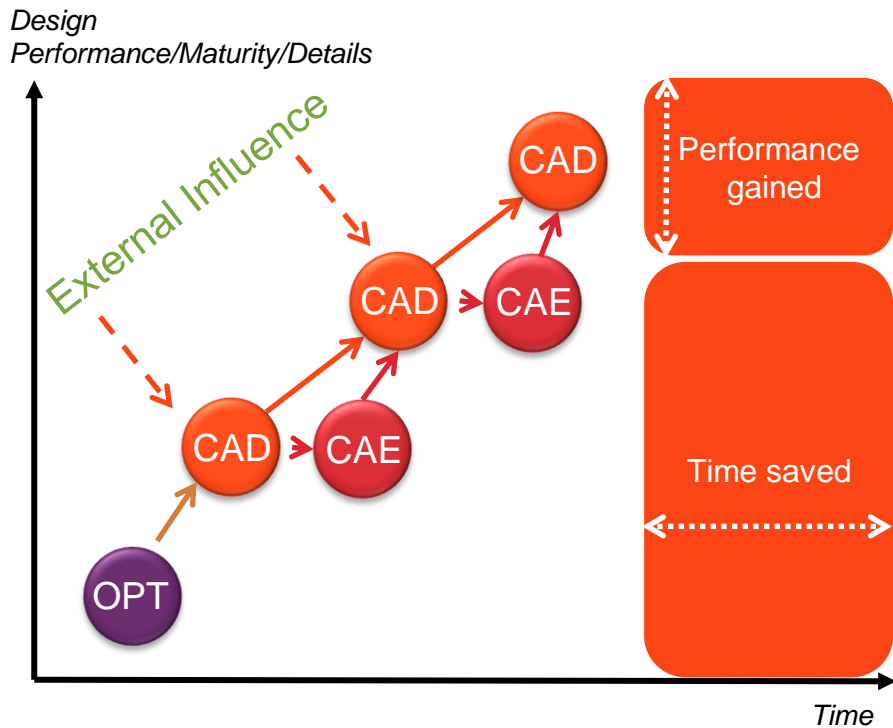
WHY USE SIMULATION DRIVEN DESIGN?

Simulation-Driven Design

Classic Development Approach



Simulation Driven Design





Track 1: Getting Started with Simulation

Agenda

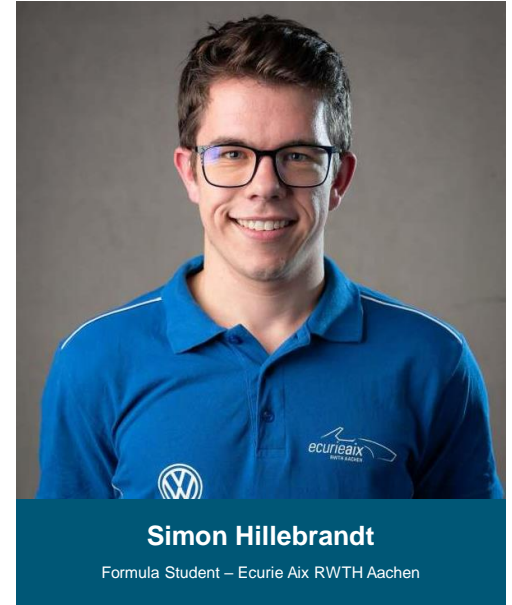
Sept 8th – EMEA & APAC Time (CEST)

Time CEST	Presenter	Company / Team	Topic
10.00 a.m. – 10.15 a.m.	Jan Grasmannsdorf	Altair Germany	Altair: Getting Started with Simulation
10.15 a.m. – 10.45 a.m.	Simon Hillebrandt	Ecurie Aix / Aachen	An Introduction to Simulation Results from Ecurie Aix
10.45 a.m. – 11.30 a.m.	Joyce Tang	Altair UK	Kinematic and Dynamic System Simulation with Altair Inspire Motion
11.30 a.m. – 12.30 p.m.	Joyce Tang	Altair UK	Fast Concept Evaluation with Altair SimSolid
12.30 p.m.	End of Session		End of Session

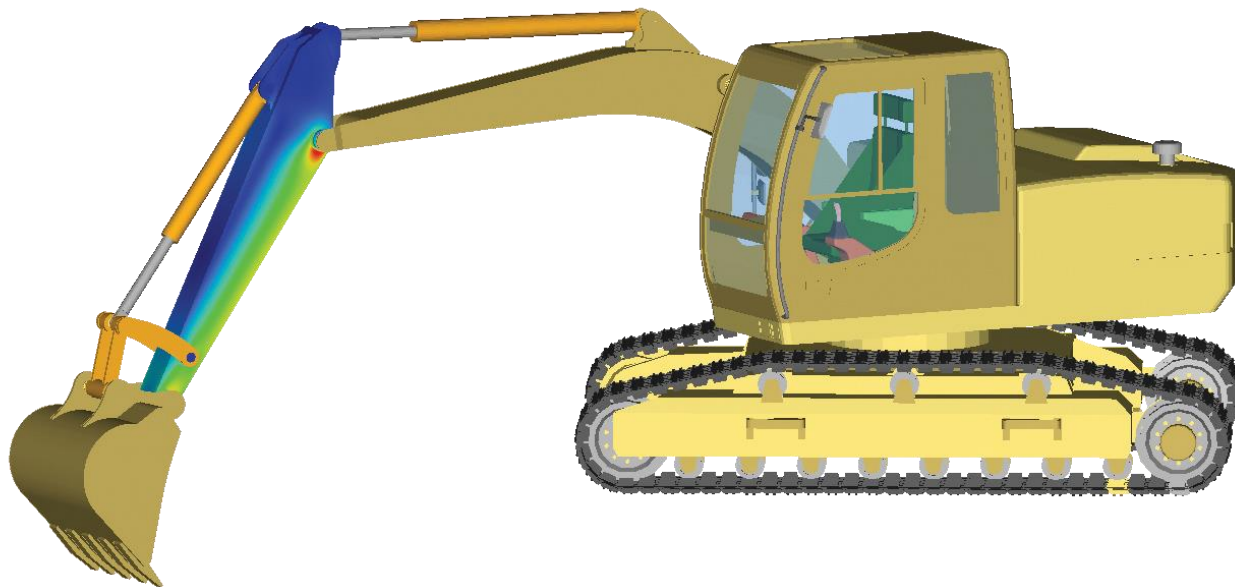
Altair Student Webinar Series

Speaker Profile

- Study Industrial Engineering in 6th Semester
- 2018: reach national competition at “Jugend Forscht” in Germany
- Since 2019: Formula Student Team Ecurie Aix
- 2020 - 2021: Groupleader Frame & Composites Group



Multi-body System Simulation



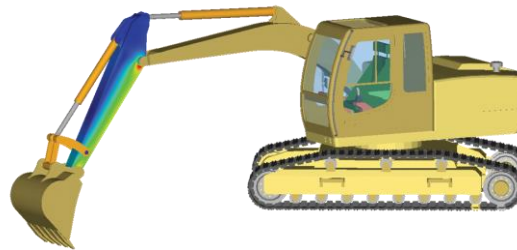
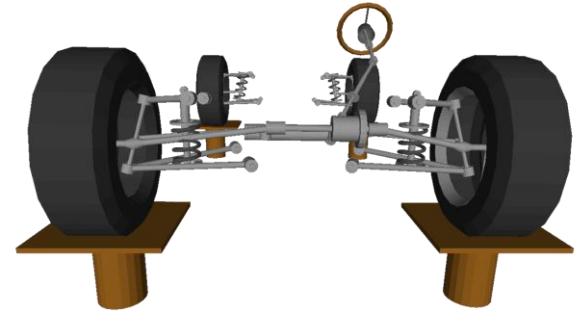
Multi-body System Simulation

Altair MotionSolve and Inspire Motion

MotionSolve and Inspire Motion perform 3D multi-body system simulations to predict the dynamic response and optimize the performance of products that move.

By considering realistic motion-induced loads and environmental effects, engineers and designers can be confident that their products, when made and operated, will perform reliably, meet durability requirements, and not vibrate excessively or fail from fatigue.

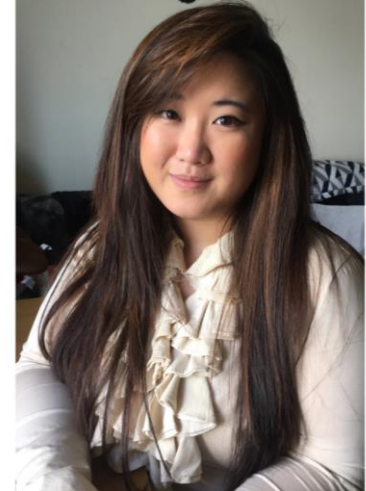
- Ensure desired system performance
- Accelerate vehicle development
- Understand and improve real-world systems



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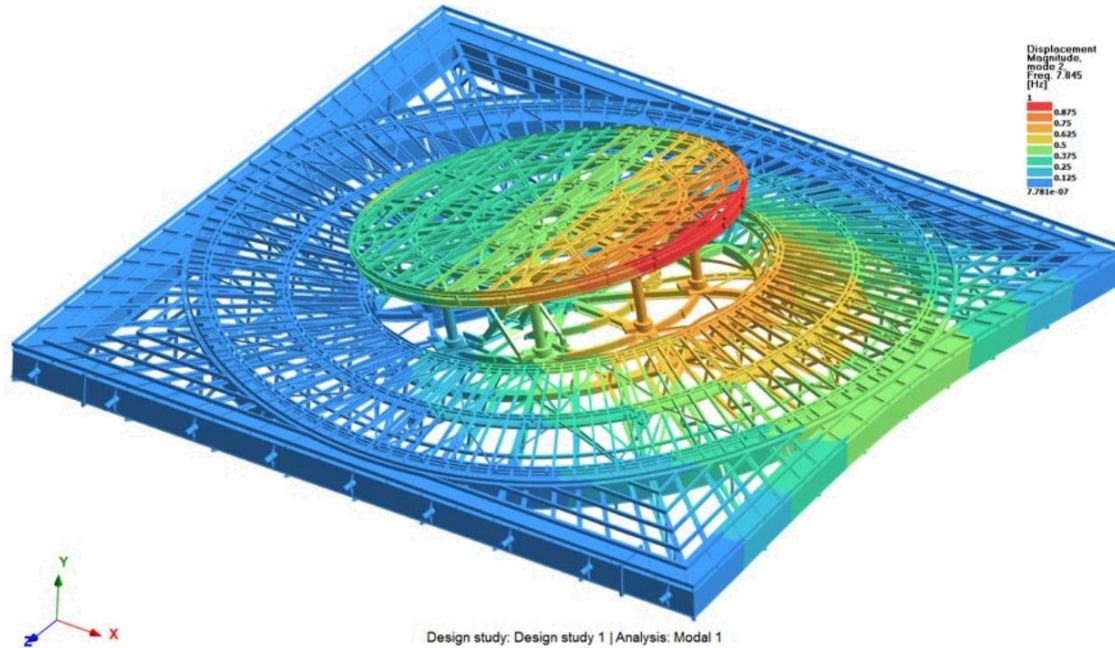
- Graduated from Coventry University in 2019 with a first class honours degree – MEng in Mechanical Engineering
- Awarded the IMechE Prize for Best Dissertation in her faculty
- Awarded the Faculty's Patrick Lister Scholarship for Best Performing Female Engineer
- Year-long placement year at Tata Technologies (2016)
- Application Engineer at Altair UK (2018)



Joyce Tang

Application Engineer – Altair UK

Structural Analysis for Rapid Design Iterations



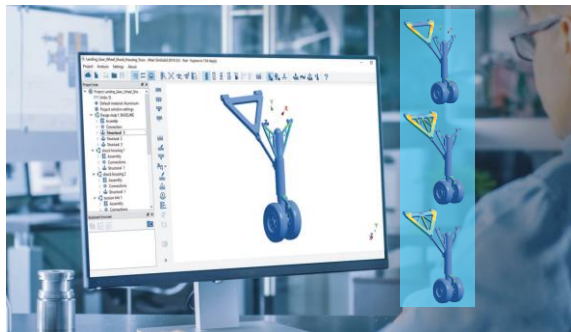
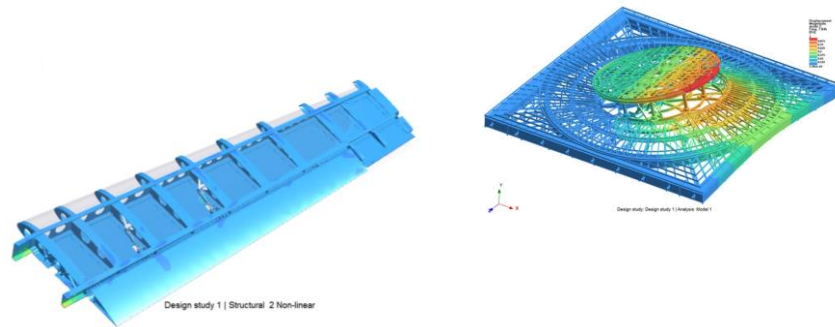
Structural Analysis for Rapid Design Iterations

Altair SimSolid

SimSolid is a structural analysis software developed specifically for rapidly evolving design processes.

It eliminates geometry simplification and meshing, the two most time-consuming and expertise-extensive tasks done in traditional FEA, enabling the analysis of fully-featured CAD assemblies in seconds to minutes.

- Structural analysis on a CAD workstation even for large and complex parts and assemblies
- Fast model setup with fully featured CAD, even with early or imperfect geometry
- CAD associativity enables rapid design iterations





THANK YOU

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#ONLYFORWARD