

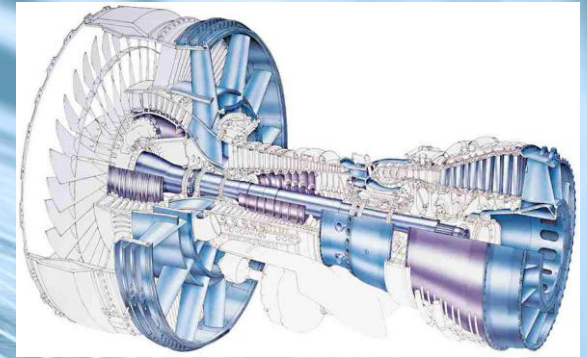
Numerical Modeling of Weld Hot Cracking

PhD student: Joar Draxler

Duration: 2014 – 2019

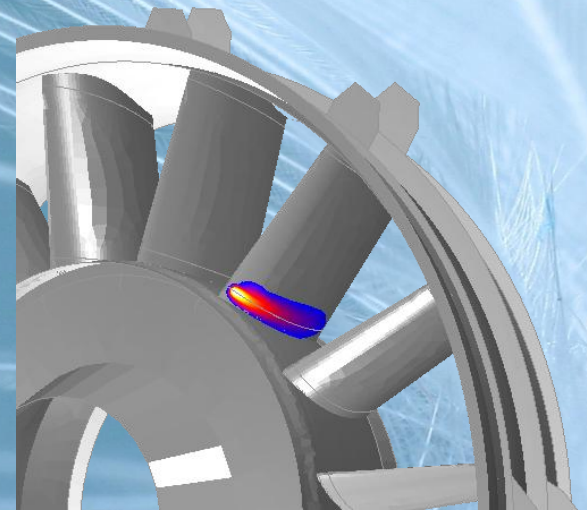
Funding: NFFP

Advisors: Prof. Lars-Erik Lindgren, Dr. Jonas Edberg



Research Scope:

- Development of full scale numerical models for simulation of weld hot crack nucleation in nickel-based superalloys.
- Evaluate different criteria for hot crack initiation.
- Investigate the relationship between crack nucleation and microstructure, thermo-physical and thermo-mechanical parameters.
- Experimental testing and validation of models.
- Optimizing weld processes against crack formation.



LIGHTer



Division of Mechanics of Solid Materials
Project partner: GKN Aerospace