

## SUMMARY

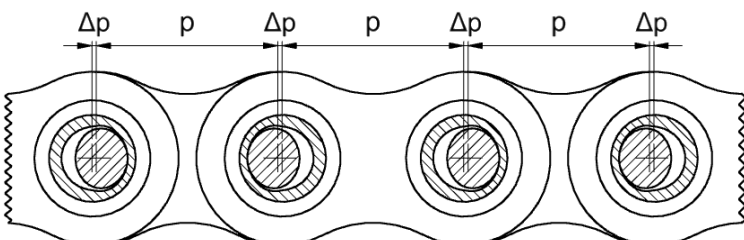
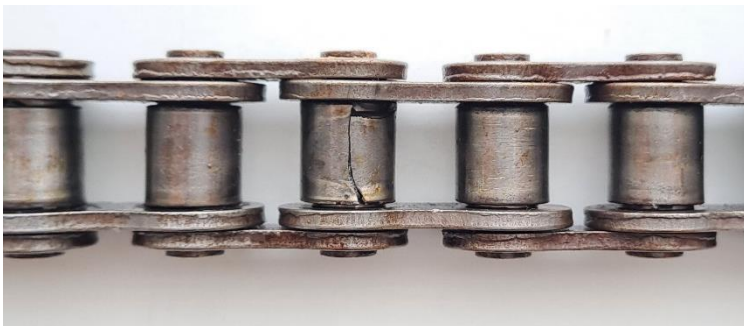
Simulating the dynamics of a roller chain drive can help with developing new drivetrain concepts. An important aspect is modeling the wear of roller chains. This wear, due to increased joint clearance, is not trivial to model since the changed geometry and contact model of a the worn chain parts must be considered. In this thesis, an approach to describe wear with an existing model is investigated.

## PROBLEM STATEMENT

- Literature review and model candidate list
- Incorporating contact force model candidates in an existing Fortran codebase
- Model data collection and analysis
- Model validation with physical data

## REQUIREMENTS

- Fluent English skills for communication with industry partners
- Advanced mechanical modeling courses (e.g. Maschinendynamik, Dynamik mechanischer Systeme) are beneficial
- Interest in theoretical problems



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# Contact Force Models for Chain Drive Modelling – Incorporating wear in a chain drive model

## Theoretical Master's thesis

## ANSPRECHPARTNER

Jonas Nölcke, M.Sc.  
Abt. Materialflussautomatisierung  
Tel. +49 711 685 83967  
E-Mail: [jonas.noelcke@ift.uni-stuttgart.de](mailto:jonas.noelcke@ift.uni-stuttgart.de)



[www.ift.uni-stuttgart.de](http://www.ift.uni-stuttgart.de)