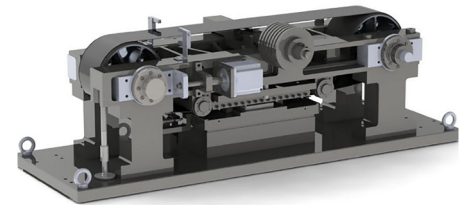


Design and construction of an innovative snow- and icetribology test rig

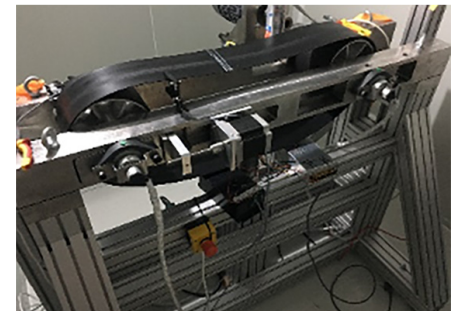
In order to increase the take-off speed for jumping skis and to allow a higher gliding speed for cross-country skis, a snow and ice tribometer was developed and manufactured in a current research project of the Institute for Plastics Technology West Palatinate (IKW).

By using the tribometer, the coefficient of adhesion between the ski base and an ice or snow surface can be measured. By reducing friction through the application of certain surface treatments, the gliding properties can be optimized especially with regard to competitions.

By evaluating the existing surface treatment processes and materials on the current market and comparing them directly with commercially available ski bases, research is being carried out to find the most durable and frictionally optimized surface coating possible.



**Figure 1: Design
snow and ice tribometer**



**Figure 2: Prototype
snow and ice tribometer**

Project duration:

08/2021 – 04/2022

Project management:

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Project partners:

German Ski Association



Funding:

Federal Institute for Sport Science

Subsidized by:



based on a decision of
the German Bundestag

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