## Simulation-Supported Analysis of Optical Gratings Using Ellipsometry



Institut für Mikroproduktionstechnik

> Produktionstechnisches Zentrum Hannover

Contact	Work content	
	At IMPT, atom chips are being developed as components of magneto-optical traps for compact matter wave interferometry. To make this technology usable in the field or on board a satellite, miniaturization will be further advanced. This will be accomplished by fabricating a nanostructured diffraction grating on the atomic chips. By cleverly exploiting diffraction effects, the number of lasers needed for cooling can be reduced.	
Sascha de Wall, M.Sc.   ♠   8113.11.03   ♦   0511/762-18347   ➡   dewall@   impt.uni-hannover.de	In the context of this work, optical gratings are to be lithographically structured and microtechnologically transferred. Subsequently, ellipsometric measurements will be used for a simulation-supported analysis of the geometric properties. The generated data will be finalised and compared with images from scanning electron microscopy. - Matlab knowledge advantageous -	
Type of work	Requirements	Starting date
Bachelor Thesis	Independent, self-reliant work, willingness to work in a clean room, knowledge in the field of microproduction technology is an advantage	Immediatly

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