



## Personal information

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## About the Author

Michael Eineder received the Diploma degree in electrical engineering and telecommunication science from the Technical University of Munich, Germany, in 1990, and the Dr. rer. nat. degree from the University of Innsbruck, Austria, in 2004. In 1990, he joined the German Aerospace Center (DLR), Oberpfaffenhofen to develop SAR signal processing algorithms for the SIR-C/X-SAR mission. Later, he was responsible for the development of SAR processing systems for SRTM/X-SAR and for TerraSAR-X. He is currently leading a department working on algorithms for SAR and InSAR for future missions such as TanDEM-X.

## Research interest

Algorithms and data processing for SAR and SAR Interferometry.

## Summary

### Introduction into SAR Interferometry

The tutorial introduces the basics of SAR interferometry. It presents the different application areas and processing techniques ranging from DEM generation over subsidence measurement to moving target indication. The concept of coherence is introduced and the major error sources that lead to decorrelation or systematic phase effects are shown. Distributed scatterers and the associated problems of wavenumber shift and volume decorrelation are explained. An overview of current space borne systems together with an outlook on future systems is given.