



## Gerhard Hobler

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TU Wien, Institut für Angewandte Physik, E134  
1040 Wien, Wiedner Hauptstraße 8-10  
Yellow Tower „B“, 5th floor, SEM.R. DB gelb 05 B



## Some Challenges to the Simulation of Radiation Effects in the Binary Collision Approximation

The simulation of radiation effects in the binary collision approximation (BCA) has been well established for many decades, exemplified by the success of the SRIM/TRIM software. While limitations of the BCA are well known, their ease of use and computational efficiency compared to molecular dynamics simulations will secure them an important role in radiation effects research in the foreseeable future. In this talk, I will discuss some of the challenges I have faced in recent years in doing simulations with my BCA code IMSIL. In particular, I will elaborate on crystal direction dependent sputtering and on topography simulation including radiation induced viscous flow.

**Ao.Univ.Prof. Dr. Gerhard Hobler** is an associate professor at the Institute of Solid-State Electronics at TU Wien. He received his Dipl.-Ing., Ph.D., and Habilitation from TU Wien in 1985, 1988, and 1997, respectively. From 1996 to 1998 he held a visiting position at Bell Laboratories, Murray Hill, NJ.

All interested colleagues are welcome to this seminar lecture  
(30 min. presentation followed by discussion).

Friedrich Aumayr  
(LVA Leiter und Seminar Chair)