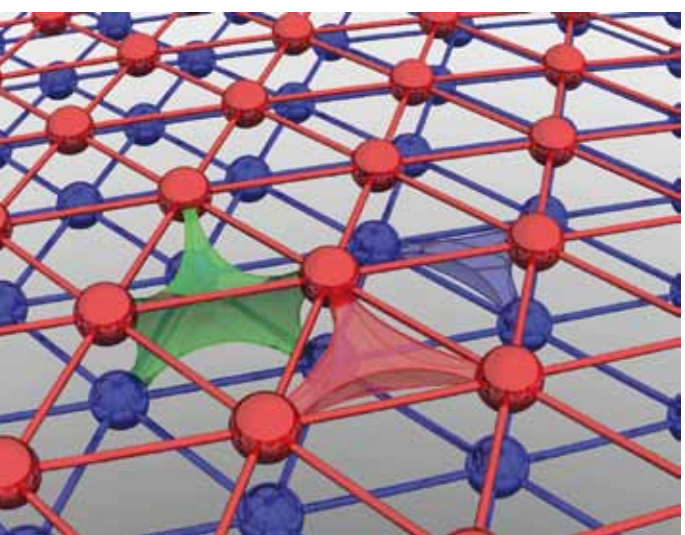


# Summer School

August 20 – 31, 2012, University of Oldenburg, Germany

## MODERN COMPUTATIONAL SCIENCE OPTIMIZATION



### Fundamentals:

software engineering, complexity theory,  
data analysis, Monte Carlo simulations,  
basic numerical optimization

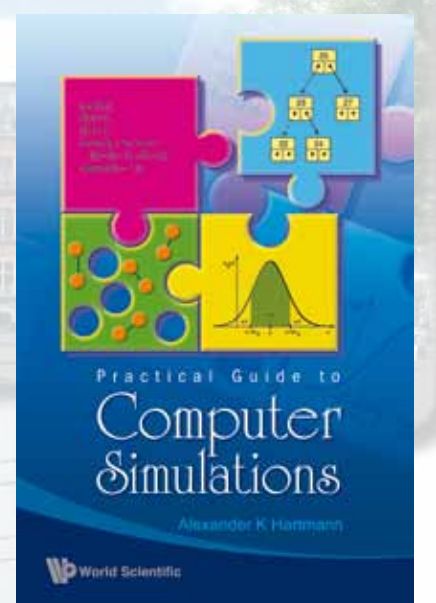
### Optimization algorithms:

interval methods, evolutionary algorithms,  
convex optimization,  
optimization with uncertainty

### Applications:

phase transitions in optimization  
problems, quantum chemistry,  
bioinformatics, protein folding

*for advanced (including PhD) students  
in the Natural Sciences, Mathematics, Informatics, and Engineering*



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[mcs@uni-oldenburg.de](mailto:mcs@uni-oldenburg.de)

Fee (including accommodation,  
breakfast, dinner, course material,  
and, for DAAD grants, travel support):  
100 € (supported students)

Organization  
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Prof. Dr. A. K. Hartmann  
Dr. Reinhard Leidl  
University of Oldenburg