

## "System of higher education in Physics in Germany"

Gertrud Zwicknagl Institut für Mathematische Physik, TU Braunschweig Braunschweig, Germany Higher education in physics in Germany

Degrees: Bachelor and Master

In all German-speaking countries:

Doctorate is the first independent research work

No "structured PhD"

Universities of Applied Sciences:
 Emphasis on physical technologies and vocational training
 Specialisation like Environmental Physics, Technical Physics,...

Universities



Higher education in physics at German Universities

Degrees:

BSc and MSc

BA and MA for physics teachers

Universities are autonomous, conceive curricula independently But: Conference of Physics Departments agrees on uniform framework

Accreditation by agencies to guarantee that curricula are consistent with general guidelines of European Higher Education Area

Important aspect: Mobility
Units are fully transferable – ECTS



Higher education in physics at German Universities

BSc: Mainly lecture-style/teacher-centered instruction
Full course in experimental and theoretical physics
Lab courses with fixed experiments
BSc thesis, has to be defended in seminar
Typically 3 years

MSc: Students actively involved
Courses can be replaced by e. g. workshop/summer schools
Lab courses in institutes
MSc thesis, has to be defended in seminar
Typically 2 years

