



Conference site

VRIPHYS 2014 will take place in the building you can see on the left hand side in the middle. It is located right next to the tram and bus station „Universität Zentralbereich“ (tram line 6, bus line 22 and 28). It is designated as „MZH“, but you can recognise it very easily by its red entrance lobby. The conference will take place on the first floor.

Bremen

Located on the river Weser, City of Bremen is the second-largest city in Northern Germany. The 1,200 year old city has a nice walkable downtown with a metropolitan feel.

Historically, Bremen has been an important entrance to the world for the hanseatic traders and seafarers. Nowadays, Bremen is an important hub of modern logistics, and a place of innovations in high technology, space industry, and numerous scientific institutions. Sometimes, Bremen is informally called “Space City” or “Beck’s City” (as the world famous Beck’s beer is brewed in Bremen).

University of Bremen

The University of Bremen, founded in 1971, is well known as the science center in northern Germany and is one of 11 institutions awarded with the title “University of Excellence” in Germany. It is organized in twelve departments. The scientific areas with the most notably reputation are physics, mathematics, industrial engineering, digital media, microbiology, geosciences (especially marine geosciences), European law, and political science.

Dinner

The VRIPHYS 2014 Dinner will take place at the Ratskeller Bremen at the 24th of September. From the University, take tram line 6 and get off at “Domsheide/City Center”. From there, the Ratskeller can be reached by a two-minute walk.

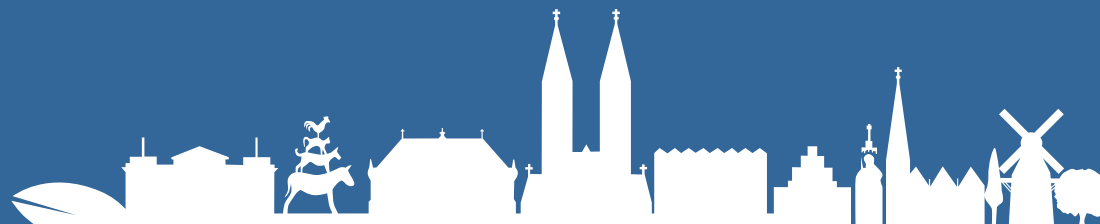


VRIPHYS 2014

24 - 25 September 2014
University of Bremen, Germany



vriphys2014.uni-bremen.de



- 8:00 Registration & coffee
- 9:00 Opening & welcome
- 9:10 Keynote talk by Prof. Dr. Andreas Weber, University Bonn, Germany
- 10:10 Coffee break
- 10:40 Session 1: Proximity computation
Session chair: Torsten Kuhlen
- Xu Hongyi, Jerney Barbic
Continuous Collision Detection Between Points and Signed Distance Fields
 - René Weller, David Mainzer, Abhishek Srinivas, Matthias Teschner, Gabriel Zachmann
Massively Parallel Batch Neural Gas for Bounding Volume Hierarchy Construction
 - Max Kaluschke, Uwe Zimmermann, Marinus Danzer, Gabriel Zachmann, René Weller
Massively-Parallel Proximity Queries for Point Clouds
- 11:55 Lunch
- 13:30 Session 2: Deformation
Session chair: Matthias Harders
- Martin Seiler, Jonas Spillmann, Matthias Harders
Efficient Transfer of Contact-Point Local Deformations in Data-Driven Simulations Using Hermitian Moments
 - Elsa Flechon, Florence Zara, Guillaume Damiand, Fabrice Jaillet
A unified topological-physical model for adaptive refinement
 - Daniel Weber, Johannes Sebastian Mueller-Roemer, Christian Altenhofen, André Stork, Dieter Fellner
A p-Multigrid Algorithm using Cubic Finite Elements for Efficient Deformation Simulation
 - Richard Malgat, Francois Faure, Arezki Boudaoud
Mechanical modelling of three-dimensional plant tissue indented by a probe
- 15:10 Coffee break
- 15:40 Session 3: Simulation in applications
Session chair: Fabrice Jaillet
- Genichi Kawada, Takashi Kanai
Controlling the Shape and Motion of Plumes in Explosion Simulations
 - E. Ricardez, J. Noguez, L. Neri, L. Munoz-Gomez, D. Escobar-Castillejos
SutureHap: a Suture Simulator with Haptic Feedback
 - Bojan Kocev, Joachim Georgii, Lars Linsen, Horst Hahn
Information Fusion for Real-time Motion Estimation in Image-guided Breast Biopsy Navigation

- Dirk Siegmund, Timotheos Samartzidis, Naser Damer, Christoph Busch
Virtual Fitting Pipeline: Body Dimension Recognition, Cloth Modelling, and On-Body Simulation

- 17:20 End of official part of day 1
- 18:30 Guided tour through Bremen's old city
 Meeting place: „Roland“, max. 25 people
- 19:30 Dinner at „Ratskeller“ in Bremen downtown
 (Am Markt 11, 28195 Bremen)

- 9:00 Session 4: Fluids & particles
Session chair: Jan Bender
- Wei-Chin Lin
Coupling Hair with Smoothed Particle Hydrodynamics Fluids
 - Felix Thaler, Barbara Solenthaler, Markus Gross
A Parallel Architecture for IISPH Fluids
 - Mihai Francu
An Improved Jacobi Solver for Particle Simulation
 - Daniel Holz; presented by Martin Courchesne
Parallel Particles: A Parallel Position Based Approach for Fast and Stable Simulation of Granular Materials
- 10:40 Coffee break
- 11:00 Work-in-Progress session
Session chair: René Weller
- P. Charrier, J. Bender
Laplacian Cut-Maps for Real-Time Deformables
 - F. Largilliere, V. Vergez, V. Verona, L. Grisoni, C. Duriez
Variable stiffness haptic interface controlled through Inverse simulation
- 11:40 Short coffee break
- 11:50 Keynote talk by Prof. Dr. Jernej Barbic, University of Southern California, USA
- 12:50 Closing & award
- 13:20 End of VRIPHYS conference
- 14:00 Start of GI VR/AR workshop (partially in German)

