

**Program of the Summer Workshop of the SPP 1164
17.-19. August**

Wednesday, 17. August

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| Lunch 12:30 | | | |
| 13:55 | Opening remarks: “The slippage session” | | |
| 14:00 | Vinogradova | Vi 243/1 | New approaches to study flow past smooth and nanorough hydrophobic surfaces |
| 14:30 | Johannsmann | | |
| 15:00 | Wagner/Münch | | Lubrication models for small to large slip lengths |
| break 15:30 | | | |
| 16:00 | Rauscher | | Dynamics of suspensions: depletion interactions and slip |
| 16:30 | Fetzer/Jacobs | Ja 905/3 | Slippage of macromolecular fluids: new insights |
| 17:30 | Discussions | | |
| dinner 18:30 | | | |

Thursday, 18. August

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| 8:00 | Breakfast | | |
| 8:45 | Begrüßung | | |
| | Probing the boundary conditions | | |
| 8:50 | Varnik/Dorner | Do 794/1-1 | Roughness induced instability in microscale flows |
| 9:10 | Brücker/Grosse | Schr 309/26 | Micro-Flow and force field measurements with arrays of micro-pillars |
| 9:30 | Bauer/Müller-Buschbaum | Mu 1487/2 | Microbeam GISAXS investigation of flow induced structures |
| 9:50 | Müller | Mu 1764/3-1 | Polymer droplets on polymer brushes |
| 10:10 | Haraszti/Spatz | SP 52/8-1 | Project Title: Hydrodynamic manipulation of active transport along actin cortex models |

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| Break 10:30 | | | |
| 10:50 | Mugele/Rathgen | Mu 1472 /4-1 | Probing confined liquids by FRAP |
| | Soft objects in fluid flow | | |
| 11:10 | Zimmermann/Holzer | Zi 443/2-1 | Interaction of polymers and migration in flow |
| 11:30 | Gutsche/Kremer | Kr 1138/14 | Nano- and microfluidics using optical tweezers with fast single particle tracking |
| 11:50 | Petrov/Schwille | SCHW 716/3 | Dynamics of Single DNA Molecules in Solution Probed by Fluorescence Correlation Spectroscopy |
| 12:10 | Finken/Seifert | Se 1119/1-1 | Short wavelength wrinkling of microcapsules in shear flow |
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| Lunch 12:30 | | | |
| 14:00 | Gompper | Go 548/4-1 | Hydrodynamics of vesicles and cells in shear and capillary flows |
| 14:20 | Pfohl/Steinhauser | PF 375/4-1 | Biomacromolecules in hydrodynamically focussed flow |
| 14:40 | Schlagberger/Netz | Ne 810/3-1 | Coupling Hydrodynamics and Elasticity: A Brownian Dynamics Study of Birefringence and Bacterial Propulsion |
| | Wetting and flow in confined geometries | | |
| 15:00 | Seemann | Se 1118/2-1: | Manipulation of Wetting Morphologies on Topographically Structured Substrates |
| 15:20 | Nirschl/Schäfer | Ni 414/1 | Electrokinetic and electrokinetic effect on the permeability of packed beds |
| 15:40 | Santer/Henrich | SA 1052/1-1 | Nano scale wicking modelled with meso-particle methods |
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| break 16:00 | | | |
| 16:30 | Rosenhahn/Rogge | HI 693/4-1 | project title: Interactions between liquid flows and chimically modified microchannels |
| 16:50 | Braun/Meyer | Br 1662/3-1: | Nanotools for fluidic experiments |
| | Devices: Design & Transport | | |
| 17:10 | Münchow/Hardt | HA 2696/4-1: | Biomolecule Separation by Electrophoresis in Two-Phase Systems |
| 17:30 | Schmidt | Schm 1298/3 | Nanofluidic aspects related to rolled-up nanotubes |
| 17:50 | Sritharan/Schneider/Wixf | Wi 1091/5-1 | Acoustic mixing at low Reynolds numbers |
| 18:10 | Felten/Jäger/Geggier | GE 1279/1 | Controlling electrohydrodynamic pumping in microchannels through defined temperature fields |
| 18:30 | Truman/Stamm | Sta 324/19-1 | Electrical lab-on-chip detection of flow |

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| dinner 19:00 | |
| 20:30 | Project leader meeting & Poster Session |

Friday, 19. August

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| 9:00 | Discussion in subgroups & Posters |
| break | |
| 11:00 | Plenum |
| 12:30 | Lunch |
| 14:00 | Departure or Discussion in subgroups & Posters |

**Teilnehmer Workshop SPP 1164
17.-19. August**

„mittag“= Anreise zum Mittagessen am 17.8. ab 12:30 Uhr
 „abend“ = Anreise zum Abendessen am 17.8. ab 18:30 Uhr
 „mit“= Abreise nach dem Mittagessen am 19.8.

| # | Nachname | Vorname, Titel | Adresse | An- reise 17. | Ab- reise 19. | Vortragstitel |
|----|----------|--------------------|---|---------------------|---------------------|---|
| 1) | Bauer | Estelle | TU Muenchen, Physik-Department Lehrstuhl E13, München Tel.: +49 (0)89-289-12457 ebauer@ph.tum.de | mittag | mit | MU 1487/2-1: Microbeam GISAXS investigation of flow induced structures |
| 2) | Braun | Hans-Georg, Dr. | Leibniz-Institute of Polymer Research Dresden, Max- Bergmann-Center of Biomaterials, Microstructure Group, Dresden Tel. (049) 351 4658 548 Braun@ipfdd.de, http://www.ipfdd.de/research/res17/res17.html | abend | mit | Br 1662/3-1: Nanotools for fluidic experiments |
| 3) | Brücker | Christoph, Dr. | Aerodynamisches Institut der RWTH Aachen Tel: +49 (0241) 8095429 bruecker@aia.rwth-aachen.de | mittag | mit | SCHR 309/26-1: Micro-Flow and force field measurements with arrays of micro-pillars (Brücker/Große) |
| 4) | Chasanis | Paris | University of Dortmund Department of Biochemical and Chemical Engineering Tel: +49-231-755-2357 | mittag | mit | neu (Projekt Kenig) |
| 5) | Dorner | Dorothee, Dr. | MPI für Eisenforschung, Duesseldorf Tel: +49 211 6792 245 dorner@mpie.de | abend | ohne | Do 794/1-1: by F. Varnik Roughness induced instability in microscale flows |
| 6) | Felten | Maika | Fraunhofer-Institut für Biomedizinische Technik IBMT / AMBT, c/o Institut für Biologie HU Berlin | abend | mit | Ge 1279/1-1: Controlling electrohydrodynamic pumping in microchannels through defined temperature fields. |
| 7) | Fetzer | Renate | Saarland University; Experimental Physics, Saarbrücken Tel 0681 / 302 648 86 r.fetzer@physik.uni-saarland.de www.uni-saarland.de/jacobs | mittag | ohne | JA 905/3-1: talk by R. Fetzer Slippage of macromolecular fluids: new insights |

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| 8) | Finken | Reimar, Dr. | II. Institut für Theoretische Physik Universität Stuttgart Tel: 0711-6854924 finken@theo2.physik.uni-stuttgart.de | mittag | mit | Se 1119/1-1: Short wavelength wrinkling of microcapsules in shear flow |
| 9) | Fuhrmann-Lieker | Thomas, Dr. | Macromolecular Chemistry and Molecular Materials University of Kassel Tel. +49 (561) 804 4720 th.fuhrmann@uni-kassel.de | abend | mit | neu |
| 10) | Geggier | Peter, Dr. | Fraunhofer-Institut für Biomedizinische Technik IBMT / AMBT; c/o Institut für Biologie, HU Berlin Tel.:+49 (0) 30 / 2093 8809 peter.geggier@ibmt.fraunhofer.de | abend | mit | GE 1279/1-1: talk by M. Felten Controlling electrohydrodynamic pumping in microchannels through defined temperature fields. |
| 11) | Golovko | Dimitry | Max Planck Institute for Polymer Research, 55128 Mainz Tel. ++49 (0) 6131-379 264 (390) Golovko@mpip-mainz.mpg.de | mittag | mit | VI 243/1-1: poster |
| 12) | Gompper | Gerhard, Prof. Dr. | Forschungszentrum Juelich, Institut fuer Festkoerperforschung, Jülich Tel +49 2461 61-4012 g.gompper@fz-juelich.de http://www.fz-juelich.de/iff/e_th2 | Do vor- mittag | mit | Go 548/4-1: Hydrodynamics of vesicles and cells in shear and capillary flows |
| 13) | Große | Sebastian | Aerodynamisches Institut der RWTH Aachen Tel: +49 (0241) 8095568 grosse@aia.rwth-aachen.de | mittag | mit | SCHR 309/26-1: Micro-Flow and force field measurements with arrays of micro-pillars” (Brücker/Große) |
| 14) | Günther | Axel, Ph.D. | Massachusetts Institute of Technology, Cambridge MA 02139, U.S.A. Tel: (+1) 617.253.1929 axelg@MIT.EDU http://www.mit.edu/~axelg/ | schon da | ohne | |
| 15) | Gutsche | Christof | Institut für Experimentelle Physik I (Abteilung PAF), Universtät Leipzig tel: 0341/9732566 mail@cgutsche.de | schonda | ohne | Kr 1138/14: Projekt title: Nano- and microfluidics using optical tweezers with fast single particle tracking |
| 16) | Haraszti | Tamas, PhD | Biophysical Chemistry, University of Heidelberg Tel.: 49-6221-544967 tamas.haraszti@urz.uni-heidelberg.de | mittag | mit | SP 52/8-1 : Project Title: Hydrodynamic manipulation of active transport along actin cortex models |
| 17) | Henrich | Björn | Freiburg Materials Research Center (FMF) Tel.:(++49)-761/203-4758 bjoern.henrich@fmf.uni-freiburg.de | mittag | ohne | SA 1052/1-1: talk by M. Santer Nano scale wicking modelled with meso-particle methods |
| 18) | Holzer | Lukas | Theoretische Physik, Uni Bayreuth Tel. 0921/55-3182 or – 3315 lukas.holzer@uni-bayreuth.de | schon da | mit | Zi 443/2-1: talk by W. Zimmermann Interaction of polymers and migration in flow |

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| 19) | Jacobs | Karin, Prof. Dr. | Saarland University, Experimental Physics, Saarbrücken, Tel. 0681/302 648 88 k.jacobs@physik.uni-saarland.de www.uni-saarland.de/jacobs | mittag schon da | mit | JA 905/3-1: talk by R. Fetzer Slippage of macromolecular fluids: new insights |
| 20) | Jäger | Magnus | Fraunhofer-Institut für Biomedizinische Technik IBMT / AMBT, c/o Institut für Biologie HU Berlin | abend | mit | GE 1279/1-1: talk by M. Felten Controlling electrohydrodynamic pumping in microchannels through defined temperature fields. |
| 21) | Kenig | Eugeny, PD Dr.-Ing. | University of Dortmund, Department of Biochemical and Chemical Engineering Tel: +49-231-755-2357 e.kenig@bci.uni-dortmund.de http://www.bci.uni-dortmund.de/tv/ | mittag | mit | neu |
| 22) | Krishnacharya | Krishnacharya | Max Planck Institute for Dynamics and Self-Organization, formerly: MPI for Flow Research, Göttingen | abend | mit | Se 1118/2-1: talk by R. Seemann Manipulation of Wetting Morphologies on Topographically Structured Substrates |
| 23) | Meyer | Evelyn, Dr. | Leibniz-Institute of Polymer Research Dresden, Max-Bergmann-Center of Biomaterials, Microstructure Group, Dresden Tel. 49-351-4658-548 http://www.ipfdd.de/research/res17/res17.html | abend | mit | BR1662/3-1: talk by H.-G. Braun: Nanotools for fluidic experiments Poster: A flexible concept to study the influence of confinement and surface on molecular motion |
| 24) | Mugele | Frieder Prof. Dr. | University of Twente, Faculty of Science and Technology, Physics of Complex Fluid, Enschede, NL Tel: (++31) 53 489 3094 (direct) f.mugele@tnw.utwente.nl http://www.tn.utwente.nl/vlfre/ | schon da | mit | Mu1472 /4-1: Probing confined liquids by FRAP |
| 25) | Müller | Marcus | mueller@physics.wisc.edu | mittag | ohne | Mu 1764/3-1: Polymer droplets on polymer brushes |
| 26) | Münch | Andreas Dr. | HU Berlin, Department of Mathematics Tel.: +49(0)30 20372 509 muench@mathematik.hu-berlin.de | mittag | mit | neu |
| 27) | Münchow | Götz | Institut für Mikromechanik, Mainz Tel: +49 6131 990 421 muenchow@imm-mainz.de | Do morgen | mit | HA 2696/4-1: Biomolecule Separation by Electrophoresis in Two-Phase Systems |
| 28) | Nirschl | Herrmann, Prof. Dr. | Uni Karlsruhe, Inst. f. mechanische Verfahrenstechnik und Mechanik Tel. +49 721 608 2400 und 2401 hermann.nirschl@mvm.uka.de | mittag | ohne (reist Do nach Lunch ab) | Ni 414/1-1: Elektrokinetic and electrokinetic effect on the permeability of packed beds |
| 29) | Petrov | Eugene, Dr. | Institute of Biophysics / BioTec, Dresden University of Technology Tel: +49 351-463-40352 petrov@biotec.tu-dresden.de | abend | mit | SCHW 716/3-1: Dynamics of Single DNA Molecules in Solution Probed by Fluorescence Correlation Spectroscopy |

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| 30) | Pfohl | Thomas, Dr. | Max-Planck-Institut für Dynamik und Selbstorganisation, Goettingen Tel. +49 551 5176 240 thomas.pfohl@ds.mpg.de http://www.ds.mpg.de/Forschung/Abt_DkF/Pfohl/index.html | abend | mit | PF 375/4-1: Biomacromolecules in hydrodynamically focussed flow |
| 31) | Rathgen | Helmut | Uni Twente, Faculty of Science and Technology, Physics of Complex Fluids, Enschede, NL Tel: (++31) 53 489 3093 h.rathgen@tnw.utwente.nl http://www.tn.utwente.nl/vlfre/ | schon da | mit | Mu1472 /4-1: talk by F. Mugele Probing confined liquids by FRAP |
| 32) | Rauscher | Markus, Dr. | MPI für Metallforschung, Stuttgart Tel: +49 (0)711 689-1908 email: rauscher@mf.mpg.de | mittag | mit | neu Dynamics of suspensions: depletion interactions and slip |
| 33) | Rogge | Tilman, Dr. | Institut für Mikrostrukturtechnik, Forschungszentrum Karlsruhe GmbH, Eggenstein-Leopoldshafen Tel.: 07247/82-8058 Tilmann.Rogge@imt.fzk.de | abend | mit | Hi 693/4-1: talk by Rosenhahn project title: Interactions between liquid flows and chemically modified microchannels |
| 34) | Rosenhahn | Axel | Uni Heidelberg, Arbeitsgruppe Holographie am Lehrstuhl für Angewandte Physikalische Chemie Tel.: +49 6221 54 5064 axel.rosenhahn@urz.uni-heidelberg.de | | | Hi 693/4-1: project title: Interactions between liquid flows and chemically modified microchannels |
| 35) | Santer | Mark, Dr. | IMTEK-Institute of Microsystem Technology, Laboratory for MEMS applications, Uni Freiburg Tel: +49-761-203-7538 santer@imtek.de | mittag | ohne | SA 1052/1-1: Nano scale wicking modelled with meso-particle methods |
| 36) | Schäfer | Sebastian | Inst. f. mechanische Verfahrenstechnik und Mechanik, Uni Karlsruhe Tel. +49 721 608 2400 und 2401 Bastian.Schaefer@mvm.uni-karlsruhe.de | mittag | mit | Ni 414/1-1 Electrokinetic and electrokinetic effect on the permeability of packed beds |
| 37) | Schlag- berger | Xaver | TU München, Physik Dept. 089 289 12389 xaver.schlagberger@ph.tum.de | mittag | mit | Ne 810/3-1: Coupling Hydrodynamics and Elasticity: A Brownian Dynamics Study of Birefringence and Bacterial Propulsion |
| 38) | Schmidt | Oliver G., PD Dr. | MPI for Solid State Research Stuttgart O.Schmidt@fkf.mpg.de | Mi kurz vor Mittern acht | ohne | Schm 1298/3-1: Nanofluidic aspects related to rolled-up nanotubes |
| 39) | Schneider | Matthias, Dr. | Universität Augsburg, Institut für Physik Lehrstuhl für Experimentalphysik I Tel.: +49 8 21/5 98-3311 matthias.schneider@physik.uni-augsburg.de | evtl. nur Do | evtl. nur Do | Wi 1091/5-1: talk by K. Sritharan Acoustic mixing at low Reynolds numbers |

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| 40) | Schulz | Simon | Biophysical Chemistry, University of Heidelberg Tel. 49-6221-544967 | mittag | mit | SP 52/8-1: talk by T. Haraszti Project Title: Hydrodynamic manipulation of active transport along actin cortex models |
| 41) | Seemann | Ralf Dr. | MPI for Dynamics and Self Organisation, Göttingen, 0551 517 6220 rseeman@gwdg.de | abend | mit | Se 1118/2-1: Manipulation of Wetting Morphologies on Topographically Structured Substrates |
| 42) | Seifert | Udo, Prof. Dr. | Universitaet Stuttgart, II. Institut fuer Theoretische Physik Tel: ++ 49 (0)711 6854927 useifert@theo2.physik.uni-stuttgart.de http://www.theo2.physik.uni-stuttgart.de/institut/seifert/seifert.html | mittag | mit | Se 1119/1-1: Talk by R. Finken Short wavelength wrinkling of microcapsules in shear flow |
| 43) | Sendner | Christian | TU München, Physik Dept.Garching 089 289 12388 csendner@ph.tum.de | mittag | mit | Ne 810/3-1: by X. Schlagberger Coupling Hydrodynamics and Elasticity: A Brownian Dynamics Study of Birefringence and Bacterial Propulsion |
| 44) | Sritharan | Kumudesh | Universität Augsburg, Institut für Physik Lehrstuhl für Experimentalphysik I Tel.: +49 8 21/5 98-3311 kumudesh.sritharan@physik.uni-augsburg.de | mittag | mit | Wi 1091/5-1: Acoustic mixing at low Reynolds numbers |
| 45) | Steinhauser | Dagmar | MPI für Dynamik und Selbstorganisation, Göttingen Tel: +49 551 5176 245 dagmar.steinhauser@ds.mpg.de | schon da | mit | PF 375/4-1: Talk by T. Pfohl Biomacromolecules in hydrodynamically focussed flow |
| 46) | Truman | Pagra | Leibniz Institute of Polymer Research Dresden Tel: +49 351 4658 -537 truman@ipfdd.de | abend | mit | Sta 324/19-1: Electrical lab-on-chip detection of flow |
| 47) | Varnik | Fathollah, Dr. | Department of Microstructure Physics and Metal Forming, MPI for Iron Research, Düsseldorf Tel: +49 (0) 211 6792 282 varnik@mpie.de , http://varnik.free.fr | mittag | unklar | Do 794/1-1: Roughness induced instability in microscale flows |
| 48) | Vinogradova | Olga, Prof. Dr. | Max Planck Institute for Polymer Research, Mainz Tel: ++49 (0) 6131-379 162 vinograd@mpip-mainz.mpg.de http://www.mpip-mainz.mpg.de/~vinograd | mittag | ohne | Vi 243/1-1: Flow past hydrophilic and hydrophobic surfaces |
| 49) | Wagner | Barbara, Dr. | Weierstrass Institute for Applied Analysis and Stochastics, Berlin, wagnerb@wias-berlin.de | mittag | mit | neu |
| 50) | Zimmermann | Walter, Prof. Dr. | Theoretische Physik, Uni Bayreuth Tel. 0921/55-3182 or – 3315 walter.zimmermann@uni-bayreuth.de | schon da | mit | Zi 443/2-1 Interaction of polymers and migration in flow |