Full Program

Sunday, June 22
17:00–20:00  Arrival, Get Together & Registration

Monday, June 23
08:30–09:00  Registration & Coffee

09:00–09:15  Opening Session

09:15–10:00  Session 1.1 - Electric-Field Effects
(Chairman: Mikishev A.)
09:15–09:30  Maxwell stress long wave instabilities in a thin aqueous film under time-dependent electro-osmotic flow.
M. Mayur and S. Amiroudine
09:30–09:45  Temperature based weak ac field enhanced patterns formation in vertical deposition of colloids.
R. Aslam, M. Pichumani and W. González-Viñas
09:45–10:00  Experimental investigation of the instability between two immiscible fluids flowing in a microchannel in the presence of an electric field.
P. Eribol and A. K. Uguz

10:00–10:35  Session 1.2 - Posters
(Chairman: Kuhlmann H.)

10:35–11:00  Coffee Break

11:00–12:00  Session 1.3 - Droplet Motion and Migration
(Chairman: Doumenc F.)
11:00–11:15  Numerical simulation of the Marangoni effect on transient mass transfer from a single moving deformable drop.
J. Chen, X. Feng, P. Fan, C. Yang and Z.-S. Mao
11:15–11:30  Control of drop motion by mechanical vibrations.
M. Bestehorn
11:30–11:45  A phase field description of ratchet-like motion of a shaken drop.
R. Borcia, I. D. Borcia and M. Bestehorn
11:45–12:00  Thermocapillary effect on migration of micro-droplet along a non-uniform thermal substrate.
X. Chen, Q.-S. Liu, Z.-Q. Zhu, Y.-N. Sun and Y.-D. Yu
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<tr>
<th>Time</th>
<th>Session</th>
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<td>12:00–14:00</td>
<td>Lunch Break</td>
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| 14:00–15:00  | Session 1.4 - Thermocapillary Liquid Bridges | (Chairman: Schwabe D.)
  | 14:00–14:15    | Instabilities of structured metal films on nanoscale.                    |
  |                |                  | *L. Kondic, N. Dong, Y. Wu, S. Fu, J. Fowlkes* and *P. Rack*             |
  | 14:15–14:30   | Time-scale estimates for particle accumulation in thermocapillary liquid bridges. |
  |                |                  | *H. C. Kuhlmann* and *F. H. Muldoon*                                    |
  | 14:30–14:45   | Spatial and kinematic topology within an ensemble of particles in a thermocapillary flow in a liquid bridge. |
  |                |                  | *D. Melnikov, T. Watanabe, D. Pushkin, V. Shevtsova* and *I. Ueno*      |
  | 14:45–15:00   | Particle-size effect in the formation of particle-depletion zones in thermocapillary liquid bridges. |
  |                |                  | *T. Leme and H. C. Kuhlmann*                                            |
| 15:00–15:35  | Session 1.5 - Posters | (Chairman: D’Alessio S.)                                            |
| 15:35–16:00  | Coffee Break     |                                                                          |
| 16:00–17:45  | Session 1.6 - Evaporation and Condensation | (Chairmen: Melnikov D. & Riegler H.)                                    |
  | 16:00–16:15   | The stabilizing effect of mass loss on an evaporating thin liquid film due to the vapor concentration gradient. |
  |                |                  | *K. Kanatani*                                                            |
  | 16:15–16:30   | Effect of a constant heat source on evaporative instability in a solid-liquid-vapor system. |
  |                |                  | *A. Karacelik, R. Narayanan* and *K. Uguz*                               |
  | 16:30–16:45   | Jumping pool boiling into mesoscopic structures of monodispersed microspheres. |
  |                |                  | *A. S. Dmitriev, M. A. El Bouz* and *P. G. Makarov*                      |
  | 16:45–17:00   | Coalescing droplets with suspended particles in a tube creeping flow.    |
  |                |                  | *M. Muraoka, T. Kamiyama, T. Wada, I. Ueno* and *H. Mizoguchi*           |
  | 17:00–17:15   | Thermocapillary convection in the evaporation droplets.                 |
  |                |                  | *B. He* and *F. Duan*                                                   |
  | 17:15–17:30   | Evolution of thermo-convective flows in liquid bridges due to evaporation. |
  |                |                  | *Y. Gaponenko* and *V. Shevtsova*                                       |
  | 17:30–17:45   | Flow regimes in a cylindrical macropore.                                |
  |                |                  | *P. Beltrame* and *S. Sammartino*                                       |
| 17:45–18:00  | IMA8 - Presentation | (Bestehorn M.)                                                   |
| 19:30–21:00  | Reception at the Mayor’s House |                                                          |
Tuesday, June 24

09:00–10:00  Session 2.1 - Liquid Film Experiments
(Chairman: Mizev A.)

09:00–09:15  Experimental study on pulsating heat pipe using self-rewetting fluid as a working fluid (visualisation of thin liquid film and surface wave).
K. Fumoto, T. Ishida, K. Yamagami, T. Kawanami and T. Inamura

09:15–09:30  Flow structures in a double free-surface film with small imposed Marangoni numbers.
B. Messner, T. Lemee, K. Ikebukuro, K. Edwin, I. Ueno and R. Narayanan

09:30–09:45  Flow structures in a double free-surface film with small imposed Marangoni numbers.
B. Messner, T. Lemee, K. Ikebukuro, K. Edwin, I. Ueno and R. Narayanan

09:45–10:00  Dynamic wetting failure and air entrainment: what can thin-film models teach us?
E. Vandre, M. S. Carvalho and S. Kumar

10:00–10:35  Session 2.2 - Posters
(Chairman: Montanero J.M.)

10:35–11:00  Coffee Break

11:00–12:00  Session 2.3 - Contact-Line Dynamics
(Chairman: Bestehorn M.)

11:00–11:15  Salt-induced Marangoni flow in evaporating sessile droplets.
V. Soulié, S. Karptischka, F. Lequien, T. Zemb, H. Mühwald and H. Riegler

11:15–11:30  Contact line motion of a volatile liquid in an inert gas.
V. Janecek, F. Doumenc, V. Nikolayev and B. Guerrier

11:30–11:45  Self-induced Marangoni flow in alcoholic binary mixtures.
C. Buffone, A. Cecere and R. Savino

11:45–12:00  Convective/capillary deposition of charged nanoparticles directed by receding contact lines: effect of collective diffusion and hydration forces.
D. Noguera-Marin, C. L. Moraila-Martínez, M. A. Cabrerrizo-Vilchez and M. A. Rodriguez-Valverde

12:00–14:00  Lunch Break
### Session 2.4 - Droplet Manipulation
(Remain: Liu Q.-S. & Khayat R.)

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<tr>
<td>14:00–14:15</td>
<td>Impact of complex drops onto surfaces: particle distribution.</td>
<td>V. Grishaev, C. S. Iorio and A. Amirfazli</td>
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<tr>
<td>14:15–14:30</td>
<td>Drops on cylindrical surfaces.</td>
<td>I. D. Borcia, R. Borcia, M. Bestehorn, C. Borcia, N. Dumitrascu and C. Egbers</td>
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<td>14:30–14:45</td>
<td>Droplet formation in thin liquid layers under the action of the laser-induced solutocapillary flows.</td>
<td>N. A. Ivanova</td>
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<td>14:45–15:00</td>
<td>Deformation of long slender non-newtonian drop in shear flow.</td>
<td>O. M. Lavrenteva, M. Favelukis and A. Nir</td>
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<td>15:00–15:15</td>
<td>Non-negligible Marangoni part in convective transport of heavy vapor from a highly volatile pendant droplet on a wafer.</td>
<td>A. Rednikov, S. Dehaeck and P. Colinet</td>
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### Session 2.5 - Interfacial Deformation
(Chairmen: Lyubimova T. & Dietze G.)

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<tr>
<td>16:00–16:15</td>
<td>An overview of thermo-vibrational instabilities in near-critical fluids.</td>
<td>G. Gandikota, S. Amiroudine, Chatain D., Lyubimova T. P. and Beysens D.</td>
</tr>
<tr>
<td>16:15–16:30</td>
<td>Interfacial instabilities between miscible fluids under horizontal vibrations.</td>
<td>V. Shevtsova, Y. Gaponenko, M. Torregrosa, V. Yasnou and A. Mialdun</td>
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<td>16:45–17:00</td>
<td>Two-frequency excitation of single-mode Faraday waves.</td>
<td>W. Batson, F. Zoueshtiagh and R. Narayanan</td>
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<td>17:00–17:15</td>
<td>The dynamics of hydraulic jumps in a viscous liquid flowing down an inclined plate.</td>
<td>E. S. Benilov and V. N. Lapin</td>
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<td>17:15–17:30</td>
<td>A numerical study of electrohydrodynamic patterning of viscoelastic materials.</td>
<td>G. Karapetsas and V. Bontozoglou</td>
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<td>17:30–17:45</td>
<td>On the interplay between inertia and shear thinning for free-surface jet flow near channel exit.</td>
<td>R. E. Khayat</td>
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<td>17:45–18:00</td>
<td>Free surface flow simulation with application to bluff body flow control.</td>
<td>S. Kocabiyik and C. Bozkaya</td>
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Wednesday, June 25

09:00–10:30  Session 3.1 - Marangoni Instability
(Chairmen: Imaishi N. & Köllner T.)

09:00–09:15  Experimental and numerical observations of surface deformation during drying of polymer solutions due to Marangoni phenomena.  
S. G. Yiantsios, S. K. Serpetsi, F. Doumenc, S. Mergui and B. Guerrier

09:15–09:30  Wavelet analysis of imperfect symmetries of nonlinear patterns in Marangoni flows.  
I. I. Wertgeim and V. G. Zakharov

09:30–09:45  Long-wave Marangoni convection in a binary-liquid layer with Soret effect and surfactant adsorption/desorption.  
M. Morozov, A. Nepomnyashchy and A. Oron

09:45–10:00  From linear to highly non-linear steady-state pattern bifurcation diagrams in confined surface-tension-driven-convection.  
M. Medale and P. Cerisier

10:00–10:15  Effects of external shield on particle accumulation structure (PAS) due to thermocapillary effect in a half-zone liquid bridge.  
M. Gotoda, T. Sano, T. Kaneko and I. Ueno

10:15–10:30  Benard-Marangoni instability in a fluid with a deformable free surface.  
D. V. Lyubimov, T. P. Lyubimova, N. I. Lobov and A. E. Samoilova

10:30–11:00  Coffee Break

11:00–12:00  Session 3.2 - Droplet Coalescence
(Chairman: Borcia R.)

11:00–11:15  Drop coalescence and drop shape: influence of Marangoni flows.  
S. Karpitschka and H. Riegler

11:15–11:30  Marangoni instability driving motion, deformation and fission of an oil drop on a surfactant solution.  
J. Irvoas, K. Eckert, K. Schwarzenberger, C. Antoine, M. Brost and V. Pimienta

11:30–11:45  Marangoni flow during coalescence of sessile drops: liquids with a precipitation reaction.  
M. Jehannin, S. Karpitschka, S. Charton, H. Möhwald, T. Zemb and H. Riegler

11:45–12:00  Interfacial instability arisen on vapor bubble in subcooled pool.  
I. Ueno, J. Ando, T. Saiki and T. Kaneko

12:00–22:00  Wachau River-Boat Trip
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<th>Time</th>
<th>Session 4.1 - Long Waves and Heat Transfer</th>
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<tr>
<td>09:00–10:30</td>
<td>(Chairmen: Starov V. &amp; Duan F.)</td>
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<td>09:00–09:15</td>
<td>Thermal coupling between two liquid films undergoing long-wavelength instabilities. M. Vécsei, M. Dietzel and S. Hardt</td>
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<td>09:15–09:30</td>
<td>On dynamic excitation of Marangoni instability of deformable liquid layer with insoluble surfactant. A. B. Mikishev and A. A. Nepomnyashchy</td>
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<td>09:30–09:45</td>
<td>Healing of an axisymmetric thin liquid film on a harmonically oscillating horizontal cylindrical surface. O. Haimovich and A. Oron</td>
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<td>09:45–10:00</td>
<td>Creating localized-droplet train by traveling thermal waves. V. Frumkin, W. Mao, A. Alexeev and A. Oron</td>
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<tr>
<td>10:00–10:15</td>
<td>How to deal with negative surface heat capacities. W. Schneider</td>
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<td>10:15–10:30</td>
<td>Effect of groove angle and distance between grooves on the micro-jet forms. C. Liu, Q.-J. Feng and X.-H. Liang</td>
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<th>Time</th>
<th>Session 4.2 - Solutocapillary Layers</th>
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<td>11:00–12:00</td>
<td>(Chairman: Oron A.)</td>
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<tr>
<td>11:00–11:15</td>
<td>Hierarchical Marangoni roll cells caused by mass transfer: direct numerical simulations and supporting experiments. T. Köllner, K. Schwarzenberger, K. Eckert, S. Odenbach and T. Boeck</td>
</tr>
<tr>
<td>11:45–12:00</td>
<td>Buoyancy driven instabilities in miscible fluids. J. Carballido-Landeira, P. M. J. Trevelyan, C. Almarcha and A. de Wit</td>
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14:00–15:30  **Session 4.3 - Surface-Tension-Driven Flows**  
(Chairmen: Shevtsova V. & Yiantsios S.)

14:00–14:15  Flow instabilities in annular pool of low Pr fluid.  
**N. Imaishi, M. Ermakov, W.Y. Shi, Y.R. Li and L. Peng**

14:15–14:30  On instability of Marangoni convection on the surface of a surfactant solution.  
**A. Mizev and A. Trofimenko**

14:30–14:45  A drying droplet spreads out its wings: thermo-capillary fingering.  
**R. De Dier, W. Sempels, J. Hofkens and J. Vermant**

14:45–15:00  Space experiment on flow transition of Marangoni convection in liquid bridge with high Prandtl number.  
**S. Matsumoto and S. Yoda**

15:00–15:15  Local corrosion of SiO$_2$(s) driven by Marangoni convection in the melting liquid surface systems.  
**Z. Yuan, Y. Wu, K. Mukai and B. Xu**

15:15–15:30  Numerical methods for interfacial flows with high density ratios and high surface tension.  
**F. Denner and B. G. M. van Wachem**

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15:30–16:00  **Coffee Break**

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16:00–18:00  **Session 4.4 - Falling Films**  
(Chairmen: Schneider W. & Kondic L.)

16:00–16:15  The effects of variable fluid properties on thin film stability.  
**S. D'Alessio, C. Seth and J.-P. Pascal**

16:15–16:30  Heat and mass transfer between a vertical flat absorbing falling liquid film and a gas flow in a channel.  
**B. Beladi and H. C. Kuhlmann**

16:30–16:45  Dynamics of thin liquid films controlled by thermal fluctuations.  
**S. Nesic, R. Cuerno, E. Moro and L. Kondic**

16:45–17:00  Investigation of the liquid film flows with evaporation by means of new mathematical models based on the general interface conditions.  
**O. N. Goncharova and E. V. Rezanova**

17:00–17:15  Interfacial heat transfer of liquid film flows in narrow channels.  
**F. Denner, M. Vieweg, C. N. Markides, S. Kalliadasis and B. G. M. van Wachem**

**G. F. Dietze, W. Rohlfis, K. Nährich, R. Kneer and B. Scheid**

17:30–17:45  Thermally induced break-up of regularly excited three-dimensional surface waves on a vertical liquid film.  
**M. Rietz, W. Rohlfis and R. Kneer**

17:45–18:00  An efficient numerical approach to systematically investigate the interfacial heat and mass transfer for wavy falling films.  
**E. Hofmann and H. C. Kuhlmann**

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18:00–18:20  **Adjourn**
Poster Sessions

Monday, June 23

10:00–10:35  Session 1.2 - Posters
(Chairman: Kuhlmann H.)

10:00–10:03  A1: Study of the acoustic surface waves propagation of porous silicon using different coupling fluids
S. Bouhedja and F. Hamdi

M. O. Denisova, K. G. Kostarev, A. L. Zuev and A. Viviani

10:06–10:09  A3: Liquid layered phenomenon and initial droplet size distribution during explosive dispersal process.
Y. N. Shi, T. Hong, C.S. Qin and Q.J. Feng

L. Kondic, M. Lam, T.-S. Lin, U. Thiele and L. Cummings

10:12–10:15  A5: Rupture of liquid film placed on solid substrate and on deep liquid under action of thermal beam.
A. Ovcharova and N. Stankous

T. Yamamoto, Y. Takagi, Y. Okano and S. Dost

V. Andreev and E. Cheremnih

10:21–10:24  A8: An index for evaluating the wettability alteration of reservoir rock toward more water wet condition by combined low salinity water and surfactant flooding.
M. Nourani, T. Tichelcamp and G. Øye

A. S. Dmitriev and P. G. Makarov

F. Doumenc and B. Guerrier

K. Fujimura
15:00–15:35 Session 1.5 - Posters
(Chairman: D’Alessio S.)

15:00–15:03 B1: Bifurcations of the rotation in the Marangoni layers.
V.A. Batishchev and V.A. Getman

A. E. Samoilova and N. I. Lobov

S. Shklyaev, A. A. Nepomnyashchy and A. Ivantsov

A. Mizev and A. Shmyrov

A. B. Mikishev and I. I. Wertgeim

T. P. Lyubimova, D. Baidina and E. Kolchanova

T. P. Lyubimova, D. V. Lyubimov and Y. Parshakova

B. L. Smorodin and B. I. Myznikova

P. Fan and C. Yang

R. Liu and Q.-S. Liu

V. Kossov, Y. Zhavrin, O. Fedorenko and G. Akylbekova
Tuesday, June 24

10:00–10:35  Session 2.2 - Posters
(Chairman: Montanero J.M.)

10:00–10:03  C1: Effect of liquid bridge shape on the oscillatory thermal Marangoni convection.
T. Yano and K. Nishino

10:03–10:06  C2: Experiments on falling water films in interaction with a counter-current air flow.
N. Kofman, S. Mergui and C. Ruyer-Quil

A. F. Ginevskiy, A. S. Dmitriev and M. A. El Bouz

C. Bach and D. Schwabe

F. Wang and L. Peng

10:15–10:18  C6: Flow instabilities in annular pool of medium Pr fluid effects of $B_{top}$, $B_{bottom}$ and $Bo_d$.
N. Imaishi, M. Ermakov and W.Y. Shi

10:18–10:21  C7: Studying of fast interfacial loading of surfactants by PANDA.
W. Sempels, R. De Dier, J. Hofkens and J. Vermant

10:21–10:24  C8: Concentration Marangoni convection as a factor of self-assembly in evaporating picolitre sessile drop of binary solvent mixture.
P. V. Lebedev-Stepanov

G. Son

10:27–10:30  C10: Janus droplet as a catalytic motor.
S. Shklyaev

A. S. Mohamed, M. A. Herrada, J.M. Lopez-Herrera and A. M. Gañán-Calvo