AGENDA

Student Training School "Physics of droplets: Basic and Advanced topics"

<table>
<tr><th></th><th>Sunday
11th July</th><th>Monday
12th July</th><th>Tuesday
13th July</th><th>Wednesday
14th July</th></tr>
<tr><td>9:00-13:05</td><td rowspan="3">Meeting at airport and transport to site
(teachers + students)</td><td>5 Lectures</td><td>5 Lectures</td><td>Eufoam, WG/MC meetings or departure</td></tr>
<tr><td>13:10-14:30</td><td>Lunch</td><td>Lunch</td><td></td></tr>
<tr><td>14:30-16:00</td><td>2 Lectures</td><td>2 Lectures</td><td rowspan="2"></td></tr>
<tr><td>16:00-16:30</td><td>Break</td><td>Break</td></tr>
<tr><td>16:30-18:30</td><td rowspan="2">Registration</td><td rowspan="2">3 Experimental demonstrations</td><td>2 Experimental demonstrations</td><td rowspan="2"></td></tr>
<tr><td>18:30-19:00</td><td>Closing</td></tr>
<tr><td>19:00</td><td>Opening dinner</td><td rowspan="2">Free time</td><td rowspan="2">Free time</td><td></td></tr>
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12 Lectures: 2 Morning sessions: 3 lectures × 45' (40+5), break 20', 2 lectures × 45' (5 lectures/morning × 2 days)
2 Afternoon sessions: 2 lectures × 45'

Experimental demonstrations and practice (5 groups × 3 or 4 students; 3 + 2 demonstrations × 40' per group):

(1) Contact angles and spreading, (2) Interfacial tension and rheology, (3) Optical methods for liquid films, (4) Emulsification, (5) Foam drainage and stability.

Tentative List of Lectures "Physics of droplets: Basic and Advanced topics"

Monday, 12th July **"Basics"**	**Tuesday, 13th July** **"Advanced Topics"**
Interfacial tension, capillarity, and surface forces (Kralchevsky)	Composite droplets and antibubbles (Vandewalle)
Surfactants – classification, features and applications (Denkov)	Drop breakup in laminar flow (Guido)
Dynamics of surfactant adsorption (Danov)	Drop collisions, oscillations, and breakup (Brenn)
Interfacial rheology (Gurkov)	Superhydrophobic surfaces (Shirtcliffe)
Emulsification (Tcholakova)	Electrowetting (van den Ende)
Food emulsions and foams (Stoyanov)	Digital microfluidics (Kreutzer)
Experimental methods for characterization of interfaces and thin films (Marinova)	Foam rheology: an overview from microscopic details to macroscopic response (Dennin)

Experimental demonstrations:

(1) Contact angles and spreading

(2) Interfacial tension and rheology

(3) Optical methods for liquid films

(4) Emulsification

(5) Foam drainage and stability