



55TH EUROPEAN TWO-PHASE FLOW GROUP MEETING

Pisa, May 11-13, 2026

MEETING PROGRAM



PROGRAM SYNOPSIS

Sunday, May 10, 2026		
18:00	20:00	Early Bird Reception
Monday, May 11, 2026		
08:30	09:30	Registration
09:30	10:00	Welcome Addresses
10:00	10:40	<i>Keynote Lecture 1</i>
10:40	11:20	<i>Coffee Break</i>
11:20	12:40	<i>SESSION 1: Bubble and Droplet Dynamics 1</i>
12:40	14:50	<i>Lunch</i>
14:50	16:10	<i>SESSION 2: Multiphase Flow 1</i>
16:10	16:50	<i>Coffee Break</i>
16:50	18:10	<i>SESSION 3: Pool Boiling 1</i>
18:10		end of day-free time
20:00	23:59	<i>Gala Dinner</i>
Tuesday, May 12, 2026		
08:30	09:00	Registration
09:00	09:40	<i>Keynote Lecture 2</i>
09:40	10:40	<i>SESSION 4: Multiphase Flow 2</i>
10:40	11:20	<i>Coffee Break s</i>
11:20	12:20	<i>SESSION 5: Flow Boiling</i>
12:20	13:40	<i>Guided tour to Museum of Ancient Ships</i>
13:40	14:50	<i>Lunch</i>
14:50	16:10	<i>SESSION 6: Interface Dynamics</i>
16:10	16:30	<i>Coffee Break</i>
16:30	17:10	<i>Keynote Lecture 3</i>
17:10	17:50	<i>SESSION 7: Pool Boiling 2</i>
17:50		end of day-free time
19:30	21:00	<i>Light Dinner at Benedettine</i>
Wedn., May 13, 2026		
08:30	09:00	Registration
09:00	09:40	<i>Keynote Lecture 4</i>
09:40	11:00	<i>SESSION 8: Bubble and Droplet Dynamics 2</i>
11:00	11:30	<i>Coffee Break</i>
11:30	12:10	<i>SESSION 9: Two-Phase Heat Transfer</i>
12:10	12:30	Meeting Closure and Adjourn

Presentation time: 15 min + 5 min discussion (35+5 min for keynotes)

DETAILED PROGRAM

Sunday 10 May

Sunday 10, 18:00-20:00 – EARLY BIRD RECEPTION, Grand Hotel Duomo, Via Santa Maria, 94, Pisa

Monday 11 May

Monday 11, 8:30-9:30 – REGISTRATION

Monday 11, 9:30-10:00 – WELCOME ADDRESSES

Monday 11, 10:00-10:40 - Keynote Lecture 1

Chair: John Thome

Nucleate boiling of water in microgravity: results from the 86th ESA parabolic flight campaign and comparison with the RUBI experiment

L. Brandle, J. Kind, A. Sielaff, and P. Stephan

Axel Sielaff, Institute for Technical Thermodynamics (TTD), TU Darmstadt, Germany

Monday 11, 10:40-11:20 – Coffee Break

Monday 11, 11:20-12:40 - SESSION 1: Bubble and Droplet Dynamics 1

Chair: Matevž Zupančič

(11:20-11:40)

Bubble growth and detachment in nucleate boiling conditions

L. Favre, M. Lebon, Y. Jaunet, M. Qaisar Raza, M. Mbaye, J. Sebilliau, C. Colin

Catherine Colin, Institut de mécanique des Fluides de Toulouse, Univ. Toulouse, France

(11:40-12:00)

Bubble growth induced by cavitation in microgravity

A. Urbano, M. Defferrez, S. Tanguy, C. Colin

Annafederica Urbano, ISAE Supaero, Toulouse, France

(12:00-12:20)

Effect of Surfactant Dynamics on Bubble Formation at an Orifice and Downstream Bubble Properties from a Gas Distributor

S. Orvalho, M. Zednikova, P. Basarova, V. Shirokov

Sandra Orvalho, Institute of Chemical Process Fundamentals of the CAS, Prague, Czech Republic

(12:20-12:40)

Modeling of convective heat-transfer around an elongated bubble

P. Botticini, D. Picchi, P. Poesio

Davide Picchi, University of Brescia, Italy

Monday 11, 12:40-14:50– Lunch

Monday 11, 14:50-16:10 - SESSION 2: Multiphase Flow 1

Chair: Annafederica Urbano

(14:50-15:10)

AURIGA “Unveiling the Riddles of Gas-Liquid Fluid Dynamics: Towards Novel Carbene Dioxide Absorption Systems” project: current status and perspectives

G. Besagni

Giorgio Besagni, Politecnico di Milano, Department of Energy, Milan, Italy

(15:10-15:30)

Interaction between a submerged jet and a free surface

F. Zonta and S. Di Giorgio

Francesco Zonta, School of Engineering, Newcastle University, United Kingdom

(15:30-15:50)

Countercurrent flow of rising vapor bubbles in evaporating downward subcooled liquid flow with an upper manifold open to the atmosphere

M. Hai Avnaim, R. Rene Hayat, D. Barnea and Y. Taitel

Yehuda Taitel, School of Mechanical Engineering, Tel Aviv University, Israel

(15:50-16:10)

Long flexible fibers: A proxy for microplastics in turbulence

D. Jeswin D. Sam, C. Marchioli

Cristian Marchioli, University of Udine, Italy

Monday 11, 16:10-16:50 – Coffee Break

Monday 11, 16:50-18:10 - SESSION 3: Pool Boiling 1

Chair: Catherine Colin

(16:50-17:10)

Semi-analytical solution for heat diffusion limited bubble growth in a finite initial superheated liquid layer

M. Bucci, M. Zupancic, I. Golobic

Mattia Bucci, Faculty of Mechanical Engineering, University of Ljubljana, Slovenia

(17:10-17:30)

Additively Manufactured Shape Memory Alloy Surfaces for Enhanced Boiling Heat Transfer in Normal and Reduced Gravity

I. Marchi, A. I. Garivalis, E. Marzban Shirkharkolaei, M. Memarian, S. Dehgahi, D. Jafari and P. Di Marco

Alekos I Garivalis, BEARS Lab, DESTEC, , University of Pisa, Italy

(17:30-17:50)

Experimental study on pool boiling performance of various dielectric fluids on a smooth aluminum surface

I Marchi, A I Garivalis, L Scateni, S Filippeschi, P Di Marco

Irene Marchi, BEARS Lab, DESTEC, University of Pisa, Italy

(17:50-18:10)

Exploring the Potential of Cold Spray Metal Additive Manufacturing for Enhanced Pool Boiling

A.J. Robinson and R. Lupoi

Tony Robinson, Department of Mechanical, Manufacturing, and Biomedical Engineering, Trinity College, University of Dublin, Ireland

Monday 11, 20:00-24:00 – GALA DINNER, Hotel Reale Vittoria, Lungarno Antonio Pacinotti, 12, Pisa

Tuesday 12 May

Tuesday 12, 8:30-9:00 – REGISTRATION

Tuesday 12, 9:00-9:40 - Keynote Lecture 2

Chair: Paolo Di Marco

Bubbles and droplets breakage in turbulence

A. Soldati

Alfredo Soldati, Institute of Fluid Mechanics & Heat Transfer, TU Wien, Austria

Tuesday 12, 9:40-10:40 - SESSION 4: Multiphase Flow 1

Chair: Alfredo Soldati

(9:40-10:00)

Dissipation energy in modelling of complex two-phase flows

D. Mikielawicz

Dariusz Mikielawicz, Gdańsk University of Technology, Poland

(10:00-10:20)

Two-phase flow phenomena in free-spanning sections of gas transportation pipelines

A. Ullmann and N. Brauner

Amos Ullmann, School of Mechanical Engineering, Tel-Aviv University, Israel

(10:20-10:40)

Capillary-driven Phase Change from Porous Structures

M. Gibbons

Michael Gibbons, Department of Mechanical, Manufacturing & Biomedical Engineering, Trinity College Dublin, Ireland

Tuesday 12, 10:40-11:20 – Coffee Break

Tuesday 12, 11:20-12:20 - SESSION 5: Flow Boiling

Chair: Anthony Robinson

(11:20-11:40)

Air-Cooled Pulsating Heat Pipe: Thermal Performance

J Thome

John Thome, Jcooling, Switzerland

(11:40-12:00)

Physically based simulations of flow boiling for nuclear thermal hydraulics applications: insights and perspectives of ongoing work at microscale and component-scale

G. Giustini

Giovanni Giustini, The University of Manchester, United Kingdom

(12:00-12:20)

CERN R&D on sub-critical and super-critical CO₂ flows in small pipes for advanced electronics cooling

P. Petagna

Paolo Petagna, CERN, CH

Tuesday 12, 12:20-13:40 – Guided Tour to Museum of Ancient Ships, Pisa

Tuesday 12, 13:40-14:50 – Lunch

Tuesday 12, 14:50-16:10 - SESSION 6: Interface Dynamics

Chair: Neima Brauner

(14:50-15:10)

On the dynamics of liquid/vapor phase change

M. Gallo, F. Occhioni, R. Daniele, C. Casciola

Carlo Massimo Casciola, Dept of Mechanical Engineering, Sapienza University of Rome, Italy

(15:10-15:30)

Numerical simulations of boiling flows using the conservative diffuse interface method

L. Brandt

Luca Brandt, DIATI, Politecnico di Torino, Italy

(15:30-15:50)

Interaction Between Evaporation and Forced Dewetting of a Volatile Liquid

P. Stephan

Peter Stephan, Institute for Technical Thermodynamics (TTD), TU Darmstadt, Germany

(15:50-16:10)

Mass Transfer from the Perspective of a Bubble on its Trajectory

M. Schlüter; L. Kursula; C. Weiland

Michael Schlüter, Hamburg University of Technology, Germany

Tuesday 12, 16:10-16:30 – Coffee Break

Tuesday 12, 16:30-17:10 - Keynote Lecture 3

Chair: Peter Stephan

Progress in low-pressure pool boiling studies on horizontal tube bundles: from bubble dynamics to heat transfer characterization

D. Kaczmarek-Piastka, T. Hałon, B. Zajaczkowski

Bartosz Zajaczkowski, Wrocław University of Science and Technology, Faculty of Mechanical and Power Engineering, Department of Thermal Sciences, Poland

Tuesday 12, 17:10-17:50 - SESSION 7: Pool Boiling 2

Chair: Dirk Lucas

(17:10-17:30)

Effect of honeycomb structures on saturated water pool boiling heat transfer

C. Falsetti, S. Mori

Chiara Falsetti, Propulsion and Power, Delft University of Technology, The Netherlands

(17:30-17:50)

Direct Numerical Simulation of Pool Boiling on Surfaces Textured with Micro-pillars

M. Magnini

Mirco Magnini, DMMME, University of Nottingham, United Kingdom

Tuesday 12, 19:30-21:00 – APERICENA (LIGHT DINNER), Centro Le Benedettine, Pisa

Wednesday 13 May

Wednesday 13, 8:30-9:00 – REGISTRATION

Wednesday 13, 9:00-9:40 - Keynote Lecture

Chair: Remi Revellin

From Nucleation to Shedding: Dropwise Condensation and Dew Formation on Grass

S. Khodaparast,

Sepideh Khodaparast, School of Mechanical Engineering, University of Leeds, United Kingdom

Wednesday 13, 9:40-11:00 - SESSION 8: Bubble and Droplet Dynamics 2

Chair: Carlo Massimo Casciola

(9:40-10:00)

Effects of bubble clustering and turbulence on the bubble rise velocity

Dirk Lucas, Hendrik Hessekemper, Tian Ma

Dirk Lucas, Helmholtz-Zentrum Dresden – Rossendorf, Germany

(10:00-10:20)

Microlayer evaporation at bubble growth in nucleate pool boiling

C. Le Houedec, B. Zajec, C. Tecchio, P. Roca i Cabarrocas, P. Bulkin, V. Nikolayev

Cassiano Tecchio, Laboratory of Thermohydraulics and Fluid Mechanics – CEA Paris-Saclay and Paris-Saclay University, France

(10:20-10:40)

Bubble and droplet breakup after interaction with a vortex ring

M. Zednikova, M. Pracharova, T. Semlerova

Maria Zednikova, Institute of Chemical Process Fundamentals of the CAS, Prague, Czech Republic

(10:40-11:00)

Thermo-Fluid Dynamics of Laser-Irradiated Droplet Using a Fully Coupled Optics-CFD Approach

S. Damianos, P. Vagovic, M. Gavaises, C. D. Ohl

Manoulis Gavaises, City St George University London, UK and University of Magdeburg, Germany

Wednesday 13, 11:00-11:30 – Coffee Break

Wednesday 13, 11:30-12:10 - SESSION 9: Two-Phase Heat Transfer

Chair: Manoulis Gavaises

(11:30-11:50)

Influence of coalescence dynamics on dropwise condensation heat transfer: experimental investigation and numerical simulation

M. Tancon, L. Fusina, A. Abbatecola, S. Bortolin and D. Del Col

Stefano Bortolin, Department of Industrial Engineering, University of Padova, Italy

(11:50-12:10)

A statistical methodological framework for development and validation of ANN models for flow boiling heat transfer coefficient prediction within micro-fin tubes

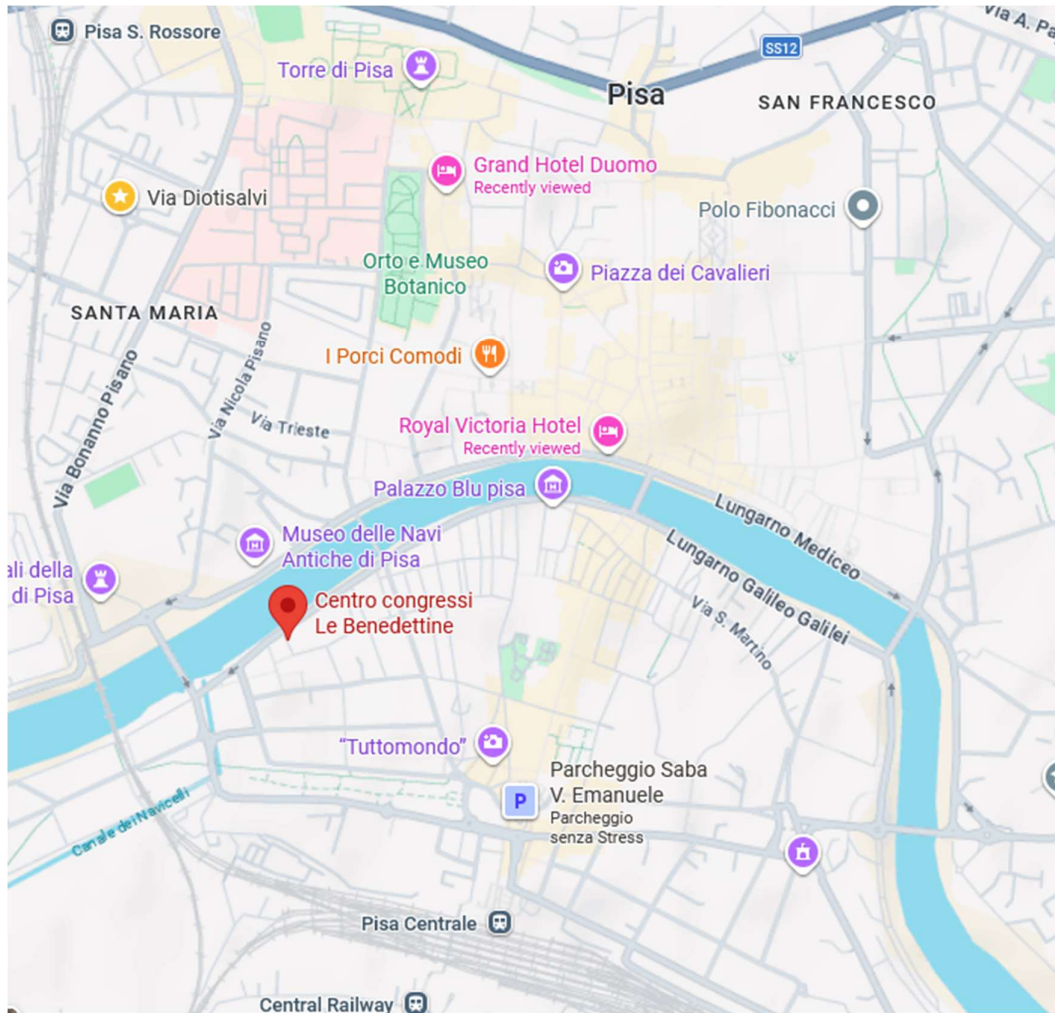
R. Mastrullo, A. W. Mauro, A. F. Passarelli, F. Pelella and L. Viscito

Luca Viscito, Department of Industrial Engineering, Federico II University of Naples, Italy

Wednesday 13, 12:10-12:30 – Meeting Closure and adjourn

VENUE - Conference and Dinner of Tuesday

The Meeting will be held in Centro Congressi Le Benedettine, along the Arno river. The Center is located close to the Leaning Tower and is at walking distance from most of hotels in Pisa.

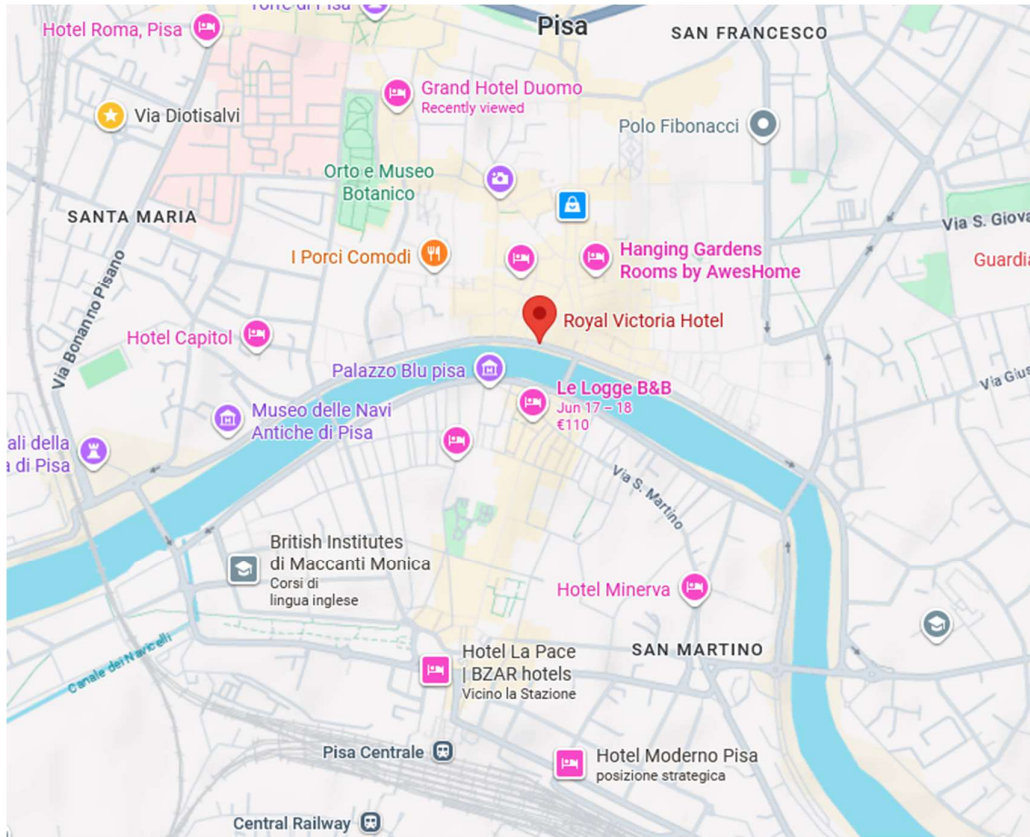


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VENUE - Gala Dinner

The Gala Dinner will be held at Hotel Royal Victoria, nicely located along the Arno river (Lungarno Pacinotti 22). The hotel is allegedly the most ancient in Italy, with records dating back to 1050 A.D. (<https://www.royalvictoria.it/>)

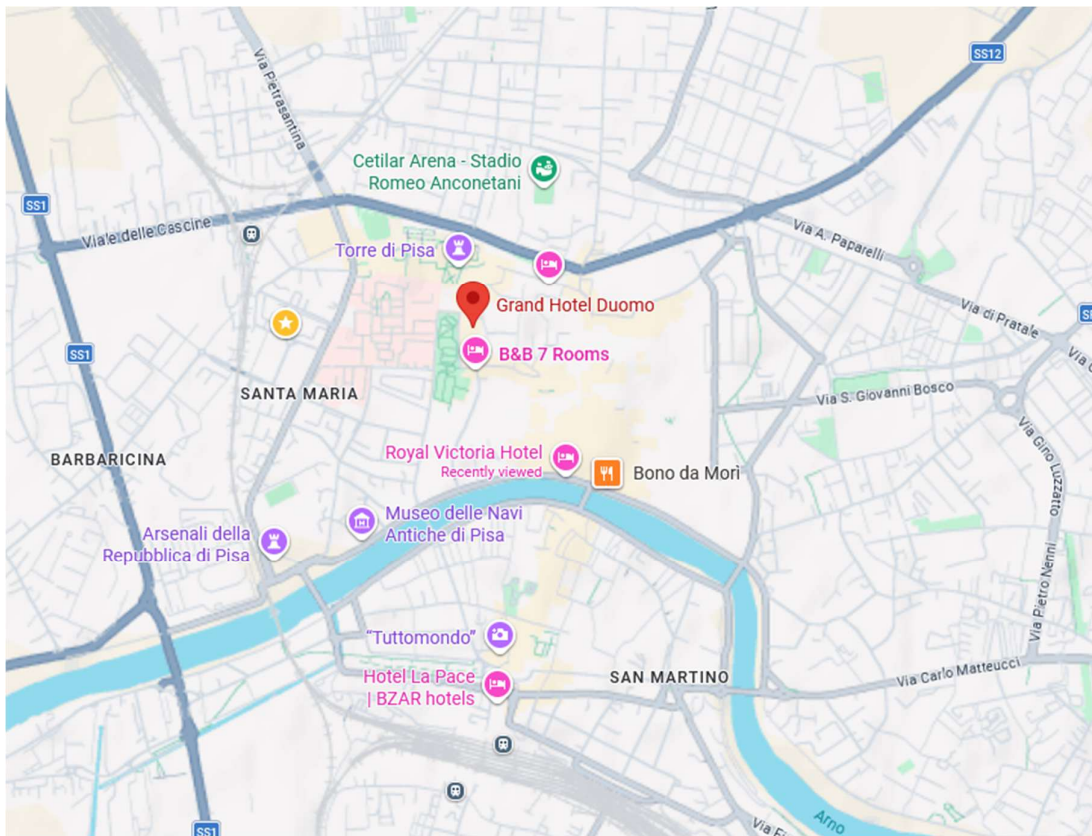


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VENUE - Early Bird Reception

The Early Bird Reception (a light dinner) will be held on the rooftop terrace of Grand Hotel Duomo, via Santa Maria, offering a breathtaking view on the Leaning Tower (<https://www.grandhotelduomopisa.it>)



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