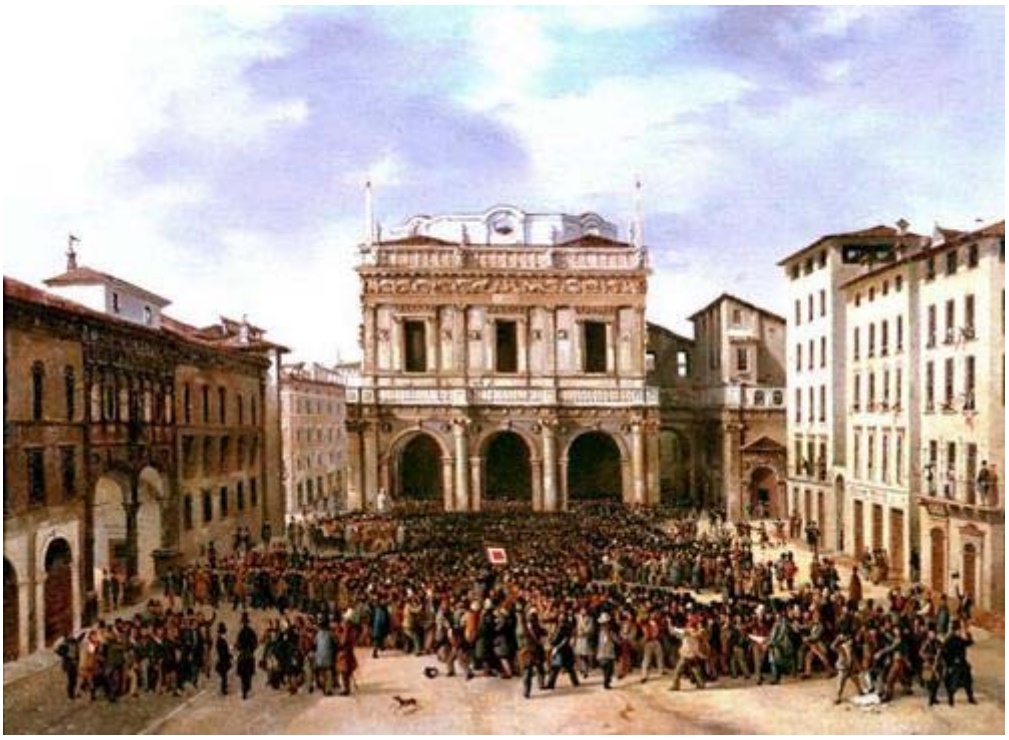
JETC 2013

12TH JOINT EUROPEAN
THERMODYNAMICS
CONFERENCE



BRESCIA, ITALY, JULY 1-5, 2013

UNIVERSITÀ DEGLI STUDI DI BRESCIA

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CONFERENCE PROGRAM
MONDAY, JULY 1ST

7:50 – **8:40**	**Registration (main lobby Ingegneria, via Branze 38)**
8:40 – 8:45	Please be seated in the conference room
8:45 – 9:20	**Welcome Address and Prigogine Prize Announcement**
9:20 – 9:50	**Lecture by Prigogine Prize Winner**
9:50 – 10:20	Panel A speakers and Doctoral students 1 to 6 please upload the PDF file of your presentation on the conference computer
9:50 – 10:40	**Coffee Break**
10:40 – 13:00	**Mini-Symposium on Topic A**
13:00 – 14:00	**Lunch**
14:00 – 14:15	Poster Preparation - Group 1
14:15 – 15:40	**Presentations by Doctoral Students: 1 to 6**
15:40 – 16:05	Panel B speakers please upload the PDF file of your presentation on the conference computer
15:40 – 16:25	**Coffee Break with Poster Discussion - Group 1**
16:25 – **18:30**	**Mini-Symposium on Topic B**
19:15	**Social Dinner at the Antica Trattoria Cà Nöa**

CONFERENCE PROGRAM
TUESDAY, JULY 2ND

8:00 – 8:20	Panel C speakers please upload the PDF file of your presentation on the conference computer
8:20 – 8:30	Please be seated in the conference room
8:30 – 11:00	**Mini-Symposium on Topic C**
11:00 – 11:20	Doctoral students 7 to 13 and 14 to 19 please upload the PDF file of your presentation on the conference computer
11:00 – 11:40	**Coffee Break with Poster Discussion - Group 1**
11:40 – 13:00	**Presentations by Doctoral Students: 7 to 13**
13:00 – 13:15	Poster Removal - Group 1
13:00 – 14:00	**Lunch**
14:00 – 14:15	Poster Preparation - Group 2
14:15 – 15:30	**Presentations by Doctoral Students: 14 to 19**
15:30 – 15:50	Panel D speakers please upload the PDF file of your presentation on the conference computer
15:30 – 16:10	**Coffee Break with Poster Discussion - Group 2**
16:10 – 18:00	**Mini-Symposium on Topic D**
	No social event this evening

WEDNESDAY, JULY 3RD

8:00 – 8:20	Panel E speakers please upload the PDF file of your presentation on the conference computer
8:20 – 8:30	Please be seated in the conference room
8:30 – 10:10	**Mini-Symposium on Topic E**
10:10 – 10:40	Panel F and Panel G speakers please upload the PDF file of your presentation on the conference computer
10:10 – 11:00	**Coffee Break with Poster Discussion - Group 2**
11:00 – 12:50	**Mini-Symposium on Topic F**
12:50 – 13:00	Poster Removal - Group 2
13:00 – 14:00	**Lunch**
14:15 – 16:20	**Mini-Symposium on Topic G**
16:20	**Announcement of the winner of the Student Contest**
16:25 – 16:50	**Coffee Break**
18:00	**First group (red-orange-white) departs by bus**
18:30	**Second group (green-blue-yellow) departs by bus**
	Aperitivo, Visit to Distilleria Franciacorta, and Gala Dinner hosted by chef Stefano Cerveni at the Antico Borgo San Vitale in Franciacorta
23:30	Buses return to Brescia

CONFERENCE PROGRAM
THURSDAY, JULY 4TH

8:00 – 8:20	Panel H speakers please upload the PDF file of your presentation on the conference computer
8:20 – 8:30	Please be seated in the conference room
8:15 – 8:30	Poster Preparation - Group 3
8:30 – 10:35	**Mini-Symposium on Topic H**
10:35 – 10:55	Panel I and Panel J speakers please upload the PDF file of your presentation on the conference computer
10:35 – 11:15	**Coffee Break with Poster Discussion - Group 3**
11:15 – 13:30	**Mini-Symposium on Topic I**
13:30 – 14:30	**Lunch**
14:45 – 16:50	**Mini-Symposium on Topic J**
16:50 – 17:10	Panel K speakers please upload the PDF file of your presentation on the conference computer
16:50 – 17:30	**Coffee Break with Poster Discussion - Group 3**
17:30 – 19:20	**Mini-Symposium on Topic K**
19:20 – 19:30	Poster Removal - Group 3
19:30	**Social Dinner at the Antica Trattoria Cà Nöa**

FRIDAY, JULY 5TH

8:00 – 8:20	Panel L speakers please upload the PDF file of your presentation on the conference computer
8:20 – 8:30	Please be seated in the conference room
8:30 – 10:35	**Mini-Symposium on Topic L**
10:35 – 11:15	**Coffee Break**
11:15 – 12:15	**Discussion on Setting up a Network for a European Project on Thermodynamics**
12:15 – 13:00	**Discussion on Future Perspectives of JETC**
13:00 – 14:00	**Lunch**
14:00	Congress Ends

TOPICS OF THE MINI-SYMPOSIA

A ENTROPY PRODUCTION MINIMIZATION, CONSTRUCTAL LAW, AND OTHER OPTIMIZATION TECHNIQUES IN ENERGY AND OTHER TECHNOLOGIES

B NON-EQUILIBRIUM THERMODYNAMICS: THE VARIOUS APPROACHES AND THEIR REASONS

C BIOLOGY AND THERMODYNAMICS: WHERE DO WE STAND?

D MAXIMUM ENTROPY PRODUCTION, STEEPEST ENTROPY ASCENT, DISSIPATION POTENTIALS, AND VARIATIONAL PRINCIPLES: HOW UNIVERSAL AND INTERRELATED?

E THERMODYNAMIC ENTROPY: THE VARIOUS DEFINITIONS AND THEIR REASONS

F THERMODYNAMICS OF INTERFACIAL PHENOMENA: SURFACE TENSION AND NON-EQUILIBRIUM EFFECTS OF KORTEWEG CAPILLARY FORCES

G EQUILIBRIUM AND NON-EQUILIBRIUM THERMODYNAMICS OF SMALL SYSTEMS, MULTISCALE METHODS, AND ENERGY HARVESTING FROM FLUCTUATIONS

H CONCEPTUAL ANALYSIS OF THE ENTROPY PRINCIPLE IN CONTINUUM PHYSICS

I CONNECTING SECOND LAW ANALYSIS WITH ECONOMICS, ECOLOGY, FLUID MECHANICS, AND MORE

J MODEL ORDER REDUCTION OF COMPLEX COMBUSTION THERMODYNAMICS AND KINETICS

K QUANTUM THERMODYNAMICS: WHAT IS IT AND WHAT CAN BE DONE WITH IT

L COMPUTATION OF THERMODYNAMIC PROPERTIES, PHASE EQUILIBRIA, AND MIXING AND SEPARATION DYNAMICS OF INDUSTRIAL BLENDS AND NANOSTRUCTURED FLUIDS

PANEL PARTICIPANTS IN THE MINI-SYMPOSIA

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TITLES OF THE CONTRIBUTIONS

PANEL A:

Andresen B., Essex C.
PRINCIPAL EQUATIONS OF STATE AND THEIR RELATION TO THE SECOND LAW AND TO THERMODYNAMIC GEOMETRY OPTIMIZATION

Bejan A.
CONSTRUCTAL LAW: DESIGN AS PHYSICS

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Ghoniem A.F.
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Hoffmann K.H., Fischer A., Getzlaff J., Lambert T., Mehnert J.
APPLYING ENDOREVERSIBLE THERMODYNAMICS: THE OPTIVENT METHOD FOR SI-ENGINES

Wilhelmsen Ø., Johannessen E., Kjelstrup S.
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Kowalski G.J., Zenouzi M., Modaresifar M.
ENTROPY PRODUCTION: INTEGRATING RENEWABLE ENERGY SOURCES INTO SUSTAINABLE ENERGY SOLUTIONS

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Evans D.J., Searles D.J., Williams S.R.
DISSIPATION AND THE FOUNDATIONS OF STATISTICAL THERMODYNAMICS

Grmela M.
MULTISCALE MESOSCOPIC DYNAMICS AND THERMODYNAMICS

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Jou D., Restuccia L.
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Rubi J.M.
MESOSCOPIC NON-EQUILIBRIUM THERMODYNAMICS FOR THE STOCHASTIC DYNAMICS OF SMALL-SCALE SYSTEMS

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PANEL C:

Bresme F., Lervik A.
HEAT TRANSFER AND DISSIPATION IN BIOMLECULES: COMPUTATIONAL STUDIES

Demirel Y.
FLUCTUATION THEOREM, INFORMATION AND BIOLOGICAL SYSTEMS

Kleidon A.
UNDERSTANDING LIFE FROM A THERMODYNAMIC EARTH SYSTEM PERSPECTIVE

Kurzynski M.
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Mavelli F., Caputo M., Altamura E., Stano P.
STOCHASTIC SIMULATIONS OF MINIMAL CELL MODEL SYSTEMS

Moroz A., Chong S.
ACCELERATION OF ENERGY DISSIPATION BY BIOLOGICAL SYSTEMS

Wollrab E., Scherer S., Worst E., Zimmer P., Kruse K., Ott A.
DRIVEN CHEMISTRY AND INCREASINGLY COMPLEX FORMS OF DYNAMIC ORDER

Salamon P., Andresen B., Hoffmann K.H.
NEARLY PERPETUAL MOTION MACHINES OF THE THIRD KIND

Županović P., Juretić D.
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PANEL D:

Beretta G.P.
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Cafaro C.
INFORMATION GEOMETRIC COMPLEXITY OF ENTROPIC MOTION ON CURVED STATISTICAL MANIFOLDS

Niven R.K., Noack B.R.
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Ozawa H., Shimokawa S.
GENERAL CHARACTERISTICS OF ENTROPY PRODUCTION IN NONLINEAR DYNAMIC SYSTEMS

Verhás J.
GYARMATI'S VARIATIONAL PRINCIPLE OF DISSIPATIVE PROCESSES

Yang Q., Leng K., Liu Y.
ON THE STRUCTURE OF MAXIMUM ENTROPY PRODUCTION PRINCIPLE: FROM NEAR TO FAR-FROM EQUILIBRIUM

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PANEL E:

Lezzi A.M., Niro A., Pilotelli M.
"DEFINING ENTROPY BEFORE HEAT, NOT VICEVERSA" IN INTRODUCTORY THERMODYNAMICS: TWENTYFIVE-YEAR TEACHING EXPERIENCE IN ENGINEERING PROGRAMS

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Glavatskiy K., Bedeaux D.
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PANEL G:

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Maas U., Klimenko A.Y.
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Yablonsky G.S., Constales D., Marin G.B.
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QUANTUM REFRIGERATORS AND THE III-LAW OF THERMODYNAMICS

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von Spakovsky M.R.
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PANEL L:

Brauner N., Shacham M.
COMBINING CONSTANT PROPERTY PREDICTION TECHNIQUES FOR WIDER APPLICABILITY AND IMPROVED ACCURACY

Correra S.
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