### UIT HEAT TRANSFER CONGRESS – BRESCIA, JUNE 21-23, 2010

# **DETAILED TECHNICAL PROGRAM**

### **KEYNOTE LECTURES**

Azzopardi B.J., Abdulkareem L.A., Sharaf S., Abdulkadir M., Ijioma A. USING TOMOGRAPHY TO INTERROGATE GAS LIQUID FLOW Monday, June 21, 10:00 Ciofalo M., Di Liberto M. UNSTEADY TURBULENCE: PHENOMENA AND MODELLING Wednesday, June 23, 9:30 Wang E.N., Xiao R., Chu K.-H. NANOENGINEERED SURFACES: TRANSPORT PHENOMENA AND THERMAL MANAGEMENT **APPLICATIONS** Tuesday, June 22, 9:00 **Topic A - SINGLE-PHASE FLUID FLOW AND HEAT TRANSFER** Ahmad N., Mishra M. UNSTEADY BOUNDARY LAYER FLOW AND HEAT TRANSFER OVER A STRETCHING SHEET Poster #11, Wednesday, June 23, 10:30 Ambrosini D., Di Biase R., Paoletti D., Ponticiello A. DOE SCHARDIN'S SCHLIEREN #2 IN PIV-MODE: A PERFORMANCE ANALYSIS Poster #12, Wednesday, June 23, 10:30 Angeli D., Pagano A., Corticelli M.A., Fichera A., Barozzi G.S. FLOW TRANSITIONS AND BIFURCATIONS OF BUOYANCY-INDUCED FLOWS FROM AN ENCLOSED CYLINDRICAL HEAT SOURCE Poster #3, Wednesday, June 23, 10:30 Arnas A.Ö. THE ROLE OF THERMODYNAMICS IN HEAT TRANSFER ANALYSES Poster #4, Wednesday, June 23, 10:30 Cuccurullo G., D'Agostino V., Di Giuda R., Senatore A., Spingi V. AN ANALITYCAL SOLUTION FOR TEMPERATURE RISE AT THE INTERFACE OF DRY SLIDING SURFACES FOR UNEVEN FRICTION Poster #5, Wednesday, June 23, 10:30 Fustinoni D., Gramazio P., Niro A. EXPERIMENTAL RESULTS ON FORCED-CONVECTION HEAT TRANSFER INSIDE A WAVY CHANNEL Poster #6, Wednesday, June 23, 10:30 Latini G., Sotte M. THERMAL CONDUCTIVITY OF ORGANIC COMPOUNDS: A NEW RELATION IN THE TEMPERATURE RANGE  $T_r 0.30 \div 0.95$ Poster #7, Wednesday, June 23, 10:30 and Oral Presentation, Monday, June 21, 13:30 Misale M., Devia F. ANALYSIS OF THE EFFECTS OF HEAT SINK TEMPERATURE ON SINGLE-PHASE NATURAL CIRCULATION LOOPS BEHAVIOUR Poster #15, Wednesday, June 23, 10:30 Mosaad M. CONJUGATE POROUS FREE CONVECTION AND FORCED CONVECTION Poster #9, Wednesday, June 23, 10:30

#### Rainieri S., Bozzoli F., Pagliarini G.

HEAT TRANSFER PERFORMANCE OF SPIRALLY ENHANCED TUBES FOR TEMPERATURE DEPENDENT PROPERTIES FLUIDS Poster #4, Tuesday, June 22, 10:00

#### Sabin M., Piva S.

ANALISI TEORICO-SPERIMENTALE DI UNA COLD PLATE A LIQUIDO PER PONTI RADIO FM Poster #10, Wednesday, June 23, 10:30

# **Topic B - TWO-PHASE AND MULTI-PHASE FLUID FLOW, HEAT TRANSFER, AND INTERFACE PHENOMENA**

#### Antonini C., Marengo M.

DROP IMPACT ON NON-WETTABLE SURFACES

#### Arosio S., Guilizzoni M.

A CORRELATION BETWEEN VOID FRACTION, LIQUID SUPERFICIAL VELOCITY AND FLOW COMPLEXITY FOR TWO-PHASE FLOWS IN DUCTS WITH SINGULARITIES

Poster #6, Tuesday, June 22, 10:00

Poster #5, Tuesday, June 22, 10:00

#### Arras S., Di Marco P., Macchia L., Risimini E.

EXPERIMENTAL STUDY ON THE EFFECT OF ELECTRIC FIELD ON SPRAY ATOMIZATION Poster #7, Tuesday, June 22, 10:00

Barletta A., Rossi di Schio E., Celli M.

INSTABILITY OF THE BRINKMAN FLOW WITH VISCOUS HEATING IN A HORIZONTAL POROUS LAYER Poster #8, Tuesday, June 22, 10:00

#### Bertani C., Grosso D., Malandrone M., Panella B.

DEFLUSSO BIFASE DI MISCELE ARIA-ACQUA IN UNA GIUNZIONE A T ORIZZONTALE PER ELEVATE VELOCITÀ SUPERFICIALI DELLA FASE LIQUIDA Poster #9, Tuesday, June 22, 10:00

#### Boccardi G., Bubbico R., Celata G.P., Di Tosto F., Trinchieri R.

PERDITE DI CARICO CONCENTRATE E RIPARTITE IN EFFLUSSO BIFASE: CONFRONTO TRA LE PREVISIONI DI CORRELAZIONI TEORICHE E DATI SPERIMENTALI

Poster #10, Tuesday, June 22, 10:00

#### Cossali G.E., Tonini S.

HEAT AND MASS TRANSFER MODELLING OF WATER DROPLETS IN HOT GASEOUS ENVIRONMENT Poster #11, Tuesday, June 22, 10:00

#### Da Riva E., Del Col D.

FILM CONDENSATION IN HORIZONTAL MINICHANNEL: APPLICATION OF THE VOF METHOD Poster #12, Tuesday, June 22, 10:00

#### Di Fede F., Poesio P., Beretta G.P.

ONE-DIMENSIONAL ENERGY BALANCE EQUATION FOR A NON-IDEAL LIQUID-LIQUID MIXTURE UNDERGOING PHASE SEGREGATION IN A SMALL DIAMETER PIPE

Oral Presentation, Monday, June 21, 15:45

#### Filippeschi S., Franco A.

EXPERIMENTAL ANALYSIS OF TWO-PHASE HEAT AND MASS TRANSFER IN SMALL DIMENSIONS NATURAL-CIRCULATION LOOPS Poster #13, Tuesday, June 22, 10:00

#### Gori F., Ciparisse J.-F., Corasaniti S.

NUMERICAL SIMULATION OF THE SUPERSONIC FLUID-DYNAMIC FIELD AND OF THE ABLATIVE PHENOMENON FOR A HEAT SHIELD Poster Cancelled

#### Longo G.A., Storato S.

HC-1270 (PROPYLENE) VAPORISATION INSIDE A BRAZED PLATE HEAT EXCHANGER

Poster #14, Tuesday, June 22, 10:00

Parissenti G., Niro A.

THERMAL MODELLING OF LASER ABLATION SIMULATION BY NUMERICAL SOLUTION OF A THREE PHASE STEPHAN PROBLEM

Poster #15, Tuesday, June 22, 10:00 and Oral Presentation, Monday, June 21, 15:45

#### Poesio P., Sotgia G., Strazza D.

HIGH VISCOSITY OIL-WATER-AIR THREE PHASE FLOWS: PRESSURE DROP AND BUBBLE DYNAMIC Poster #16, Tuesday, June 22, 10:00

Santangelo P.E., Corticelli M.A., Tartarini P.

THERMAL INTERACTION BETWEEN TWO DROPLETS IN SINGLE-PHASE EVAPORATION

Poster #17, Tuesday, June 22, 10:00

### **Topic C - COMPUTATIONAL FLUID FLOW AND HEAT TRANSFER**

Andreozzi A., Bianco N., Manca O., Masullo G., Matrone A., Nardini S., Naso V., Tamburrino S. CONVECTIVE HEAT TRANSFER IN SOLAR RECEIVER FOR HIGH TEMPERATURE APPLICATIONS Poster #18, Wednesday, June 23, 10:30

Angeli D., Barozzi G.S., Errico O., Stalio E., Tartarini P.

DIRECT NUMERICAL SIMULATION OF FORCED CONVECTION OVER STEPS AT LOW PRANDTL NUMBER Poster #3, Monday, June 21, 14:30 and Oral Presentation, Tuesday, June 22, 13:30

Bassenghi F., Bornia G., Cervone A., Manservisi S., Scardovelli R. EXTENDED BOUNDARY APPROACH FOR OPTIMAL CONTROL OF INCOMPRESSIBLE STEADY MHD EQUATIONS Poster #1, Monday, June 21, 14:30

**Bassenghi F., Bornia G., Cervone A., Manservisi S., Scardovelli R.** A COMPARISON BETWEEN A PRESSURE PROJECTION METHOD AND A FULLY COUPLED MULTIGRID FEM NAVIER-STOKES SOLVER

Poster #2, Monday, June 21, 14:30 and Oral Presentation, Tuesday, June 22, 11:00

#### Buonomo B., Manca O., Mesolella P., Nardini S.

NUMERICAL STUDY ON MIXED CONVECTION IN POROUS MEDIA IN A CHANNEL WITH A<br/>LATERAL OPEN CAVITYPoster #20, Wednesday, June 23, 10:30

**Calgaro B., Ambrosini W., Andreussi A.** PREDICTION OF PRESSURE LOSSES AND LIQUID HOLDUP IN HORIZONTAL STRATIFIED AND STRATIFIED-WAVY GAS-LIQUID FLOW IN A PIPE

Poster #1, Tuesday, June 22, 10:00 and Oral Presentation, Tuesday, June 22, 11:00

#### Del Giudice S., Savino S., Nonino C.

FORCED CONVECTION IN LAMINAR DUCT FLOWS OF LIQUIDS WITH TEMPERATUREDEPENDENT PROPERTIES: A SIMPLIFIED APPROACHPoster #4, Monday, June 21, 14:30

#### Magnini M., Pulvirenti B.

NUMERICAL STUDY OF VAPOR BUBBLE GROWING IN SUPERHEATED LIQUID

Poster #19, Tuesday, June 22, 10:00 and Oral Presentation, Tuesday, June 22, 11:00

Monaco G., Mongibello L., de Luca L.

WALL COOLING BY MEANS OF SYNTHETIC AND CONTINUOUS JETS

Poster #2, Tuesday, June 22, 10:00 and Oral Presentation, Tuesday, June 22, 11:00

#### Morgut M., Nobile E.

ASSESSMENT AND TUNING OF CFD CAVITATION MODEL PARAMETERS USING ADVANCED OPTIMIZATION TECHNIQUES

Poster #18, Tuesday, June 22, 10:00 and Oral Presentation, Tuesday, June 22, 11:00

#### Schiavi L., Bozzoli F., Rainieri S., Pagliarini G.

PARAMETER ESTIMATION PROCEDURE FOR GEOTHERMAL APPLICATIONS

Poster #3, Tuesday, June 22, 10:00 and Oral Presentation, Tuesday, June 22, 11:00

#### Sciacovelli A., Borchiellini R., Verda V.

MULTISCALE APPROACH FOR THE OPTIMAL DESIGN OF FLUID DISTRIBUTION SYSTEMS IN A MCFC STACK Poster #5, Monday, June 21, 14:30 and Oral Presentation, Tuesday, June 22, 13:30 Stipcich G., Piller M., Zovatto L. DEVELOPMENT AND APPLICATION OF HIGH-ORDER DISCONTINUOUS CVFEM ALGORITHMS Poster #6, Monday, June 21, 14:30 and Oral Presentation, Tuesday, June 22, 13:30 Zonta F., Marchioli C., Soldati A.

VARIABLE-VISCOSITY EFFECTS IN TURBULENT CHANNEL FLOW

Oral Presentation, Tuesday, June 22, 13:30

#### **Topic D - MICRO-THERMOFLUIDICS, NANOFLUIDS, FERROFLUIDS**

#### Akbarinia A., Laur R.

TWO DIMENSIONAL FORCED CONVECTION NANOFLUIDS FLOW IN MICROCHANNEL USING SLIP VELOCITY AND JUMP TEMPERATURE BOUNDARY CONDITIONS

Oral Presentation, Monday, June 21, 15:45

**Celata G.P., Cumo M., Lattanzi A., Mariani A., Saraceno L.** FLOW BOILING HEAT TRANSFER OF FC-72 IN A MICROTUBE

Poster #1, Wednesday, June 23, 10:30

**Celata G.P., Cumo M., Dossevi D., Jilisen R.T.M., Saha S.K., Zummo G.** FLOW PATTERN ANALYSIS OF FLOW BOILING INSIDE A MICROTUBE

Poster #2, Wednesday, June 23, 10:30

#### Djajadiwinata E., al-Ansary H., al-Dakkan K., al-Jariwi A. ESTIMATION OF EFFECTIVENESS OF USING NANOFLUIDS FLOWING INSIDE A CIRCULAR

TUBE FOR HEAT TRANSFER APPLICATIONSPoster #8, Wednesday, June 23, 10:30Kalteh M., Abbassi A., Saffar-Avval M., Harting J.

NANOPARTICLE SIZE EFFECT ON THE CONVECTIVE HEAT TRANSFER OF A NANOFLUID FLOW INSIDE A MICROCHANNEL

Oral Presentation, Monday, June 21, 15:45

#### Lorenzini M., Morini G.L.

EFFICIENZA DI ALETTA IN MICRO CANALI SOGGETTI A VALORI DEL COEFFICIENTE DI SCAMBIO TERMICO CONVETTIVO LOCALMENTE VARIABILI

Poster #14, Wednesday, June 23, 10:30

Manca O., Nardini S., Ricci D.

NUMERICAL ANALYSIS OF NANOFLUIDS FORCED CONVECTION IN CHANNELS WITH TRANSVERSE RIBS Poster #19, Wednesday, June 23, 10:30

#### Misale M., Devia F., Garibaldi P., Cioli D.

EXPERIMENTS WITH AL2O3 NANOFLUID IN A SINGLE-PHASE NATURAL CIRCULATION MINI-LOOP: PRELIMINARY RESULTS Poster #16, Wednesday, June 23, 10:30

#### Morini G.L., Lorenzini M.

INFLUENZA DELLA DISSIPAZIONE VISCOSA SULLO SCAMBIO TERMICO LAMINARE IN<br/>MICRO GEOMETRIE A SPIGOLI ARROTONDATIPoster #13, Wednesday, June 23, 10:30

#### Spiga M., Vocale P.

SLIP FLOW IN CONVEZIONE NATURALE

Poster #17, Wednesday, June 23, 10:30

### **Topic E - HEAT TRANSFER IN FISSION AND FUSION NUCLEAR POWER PLANTS**

Aquaro D.

HEAT TRANSFER IN PEBBLE BEDS

Poster #7, Monday, June 21, 14:30

Bandini G., Lombardo C., Manservisi S., Meloni P., Polidori M., Scardovelli R., Vestrucci P., Zaccarelli M. SVILUPPO DI UN MODELLO TERMO-FLUIDODINAMICO DELL'IMPIANTO SPERIMENTALE

SVILUPPO DI UN MODELLO TERMO-FLUIDODINAMICO DELL'IMPIANTO SPERIMENTALE SPES-99 CON IL CODICE DI SISTEMA NUCLEARE CATHARE Poster #8, Monday, June 21, 14:30

Casamirra M., Castiglia F., Giardina M., Morana G., De Salve M., Orio M., Panella B. RELAP5 SIMULATION OF TWO-PHASE FLOW EXPERIMENTS IN VERTICAL HELICAL TUBES Poster #9, Monday, June 21, 14:30

**D'Angelo M.G., Di Maio P.A., Paradiso D., Vella G.** ON THE NUMERICAL ASSESSMENT OF THE THERMAL-HYDRAULIC BEHAVIOUR OF ITER UPPER PORT PLUG MAIN BODY COOLING CIRCUIT Poster #10, Monday, June 21, 14:30

**Forgione N., Napoli A., Palazzo S., Tarantino M., Labanti V., Gaggini P., Venturi G.** NUMERICAL SIMULATION OF NATURAL AND GAS ENHANCED CIRCULATION TESTS PERFORMED WITH NACIE LOOP Poster #11, Monday, June 21, 14:30

Manzini G., Parozzi F.

FAST REACTOR SAFETY - SODIUM POOL FIRE MODELING

Poster #12, Monday, June 21, 14:30

Mazzini G., Manfredini A.

ANALYSIS OF THE THERMAL-HYDRAULIC AND AEROSOLS BEHAVIOUR IN THE PHEBUS CONTAINMENT VESSEL DURING THE FPT1 TEST USING MELCOR AND ASTEC CODES Poster #13, Monday, June 21, 14:30 and Oral Presentation, Monday, June 21, 11:30

Visca E., Pizzuto A., Roccella S. TECNOLOGIE PER LA COSTRUZIONE DI COMPONENTI AD ALTO FLUSSO TERMICO PER REATTORI A FUSIONE Poster #14, Monday, June 21, 14:30

### **Topic F - HEAT TRANSFER IN ENERGY SYSTEMS AND ENVIRONMENTAL TECHNOLOGIES**

Aleknaviciute I., Collins M.W., Cosgrove J., Karayiannis T.G.HYDROCARBON CRACKING AND THE USE OF NON-THERMAL PLASMAS: CONCISE REVIEWOF CRUDE OILS AND PLASMASPoster #3, Tuesday, June 22, 14:30

Aleknaviciute I., Collins M.W., Cosgrove J., Karayiannis T.G.HYDROCARBON CRACKING AND THE USE OF NON-THERMAL PLASMAS: CORONADISCHARGE AND ITS APPLICATIONPoster #4, Tuesday, June 22, 14:30

Allesina G., Tartarini P. A STAND-ALONE STANDING-WAVE THERMOACOUSTIC REFRIGERATOR Poster #1, Tuesday, June 22, 14:30 and Oral Presentation, Monday, June 21, 11:30

Balocco C., Liò P.

TRANSIENT AIR FLOW SIMULATION FOR CONTROLLING VIRUS DIFFUSION IN ANISOLATION ROOM: A CASE STUDYPoster #15, Tuesday, June 22, 14:30

Bottarelli M.

ANALISI NUMERICA DI UNA SONDA GEOTERMICA ORIZZONTALE

Briola S., Di Marco P., Marcelli A.

ANALISI DEL THERMAL RESPONSE TEST PER SONDE GEOTERMICHE

Poster #6, Tuesday, June 22, 14:30

Poster #5, Tuesday, June 22, 14:30

Casano G., Piva S.

ANALISI PARAMETRICA DELLE PRESTAZIONI DI UN GENERATORE TERMOELETTRICO Poster #7. Tuesday, June 22, 14:30

	Poster #7, Tuesday, June 22, 14:30
<b>De Salve M., Milani D., Panella B., Roveta G.</b> LIQUEFAZIONE DELL'AZOTO: UN IMPIANTO PROTOTIPO	Poster #8, Tuesday, June 22, 14:30
<b>Fabbri G., Lorenzini M.</b> ANALISI TERMICA DI LAMPADE A RISPARMIO ENERGETICO	Poster #9, Tuesday, June 22, 14:30
<b>Formisano A., Morrone B.</b> OPTIMAL DESIGN AND COOLING OF BITTER MAGNETS	Poster #10, Tuesday, June 22, 14:30
<b>Fustinoni D., Bagnoli P., Faggian G., Fumero R., Costantino M.L.</b> EXPERIMENTAL INVESTIGATION ON PERIPHERAL PERFUSION B PATIENTS UNDERGOING CARDIAC SURGERY WITH EXTRACORP	
<b>Fustinoni D., Nason F., Dubini G., Niro A.</b> CHARACTERIZATION OF AN INNOVATIVE POLYMERASE CHAIN ON BUOYANCY DRIVEN FLOW BY MEANS OF IR THERMOGRAPH	
	Poster #12, Tuesday, June 22, 14:30
<b>Grassi W., Testi D.</b> HEAT TRANSFER PROMOTION BY ELECTRIC FIELDS IN A COOLA THERMAL CONTROL	NT FOR SPACECRAFT Poster #13, Tuesday, June 22, 14:30
<b>Invernizzi C., Incerti G., Lezzi A.M., Mazzù A., Parmigiani S., Petrocel</b> DISTRIBUTED ELECTRICITY GENERATION USING AN EXTERNAL STIRLING ENGINE HEATED BY AGRICULTURAL WASTES Poster #20, Tuesday, June 22, 14:30 and Oral F	COMBUSTION RINGBOM-
<b>Lazzari S., Priarone A., Zanchini E.</b> EFFECT OF GROUNDWATER MOVEMENT ON THE LONG TERM EI HEAT EXCHANGERS	FFICIENCY OF BOREHOLE Poster #14, Tuesday, June 22, 14:30
<b>Libbra A., Muscio A., Tartarini P.</b> ANALISI DELLE DINAMICHE DI TRANSIZIONE DI FASE IN MATER TERMICO INCAPSULATI	RIALI PER ACCUMULO Poster #2, Tuesday, June 22, 14:30
Paganini D., Piazzini S., Presciani A. DESIGN AND REALIZATION OF A BLACK-BODY CAVITY RECEIVE CONCENTRATED SOLAR RADIATION THROUGH ADAPTIVE MIRE Poster #19, Tuesday, June 22, 14:30 and Oral F	RORS
<b>Parissenti G., Niro A.</b> POWER DISSIPATION IN HEAVY METALS RECOVERY FROM INCI	
<b>Petrone G., Cammarata G., Cammarata L.</b> NUMERICAL INVESTIGATION ON VENTILATION AND INDOOR AI CABINS	
<b>Scarpa F., Tagliafico L.A.</b> OPTIMAL CONTROL CRITERIA FOR GAS-BURNER INTEGRATED S PUMPS	SOLAR ASSISTED HEAT
	Poster #16, Tuesday, June 22, 14:30

### **Topic G - HEAT TRANSFER IN BUILDINGS**

Belpoliti V., Bizzarri G., Ligabue G., Montanari F. SCENARI DI ENERGY RETROFIT DEL PATRIMONIO EDILIZIO RESIDENZIALE PUBBLICO: POLITICHE ENERGETICHE E RIDUZIONE DELLE EMISSIONI DI CO2 NELLA REGIONE EMILIA Poster #15, Monday, June 21, 14:30 and Oral Presentation, Monday, June 21, 13:30 ROMAGNA Borioli P., Pilotelli M. EFFECT OF TEST CONDITIONS ON THE EXPERIMENTAL DETERMINATION OF THERMAL CONDUCTIVITY OF WALLS BY MEANS OF HEAT FLOW METERS Oral Presentation, Monday, June 21, 13:30 Fabbri K., Tronchin L., Tarabusi V. ENERGY PERFORMANCE OF BUILDINGS: CONSUMPTION AND METHODOLOGIES Poster #16, Monday, June 21, 14:30 Guidi M., Lorenzini M., Valdiserri P. L'UTILIZZO DEI SOFTWARE COMMERCIALI COME STRUMENTI DI PROGETTO PER EDIFICI A **BASSO CONSUMO ENERGETICO** Poster #19, Monday, June 21, 14:30 Luscietti D., Lezzi A.M. SULLA STIMA DEI PONTI TERMICI IN PANNELLI DI TAMPONAMENTO PREFABBRICATI Oral Presentation, Monday, June 21, 13:30 Mariani R., Moretti E., Barbanera M. PRESTAZIONI TERMICHE DI INFISSI IN LEGNO: ANALISI NUMERICA E RISULTATI Poster #18, Monday, June 21, 14:30

Spiga M., Vocale P. ANALISI TERMICA DI UNA PARETE VENTILATA

Poster #17, Monday, June 21, 14:30

PRESTAZIONI ENERGETICHE E ANALISI DI REDDITIVITA' CON RIFERIMENTO AD UN IMPIANTO A PANNELLI SOLARI PER LA PRODUZIONE D'ACQUA CALDA SANITARIA

Poster #20, Monday, June 21, 14:30

**SPERIMENTALI** 

Valdiserri P., Biserni C.

## UIT HEAT TRANSFER CONGRESS – BRESCIA, JUNE 21-23, 2010

# **CONGRESS PROGRAM**

### Monday, June 21, 2010

<b>8:30</b> – 9:30	Registration	8:30 - 9:00	Poster
<b>9:30</b> – 9:45	Welcome Address		Keyno
<b>9:45</b> – 10:00	UIT Best Thesis Prize in Memory of Claudio Pisoni: Announcement of the 2009 Winner	<b>9:00</b> – 10:00	Nanoe Pheno Applic
<b>10:00</b> – 11:00	Keynote Lecture by Prof. Barry Azzopardi on Using Tomography to Interrogate Gas Liquid Flow	<b>10:00</b> – 11:00	••
<b>11:00</b> – 11:30	Coffee Break	<b>11:00</b> – 12:30	Presen
<b>11:30</b> – 12:30	Presentations by Doctoral Students: 1 to 4	<b>12:30</b> – 13:30	Lunch
<b>12:30</b> – 13:30	Lunch	12:30 - 12:45	Poster
13:00 - 13:30	Poster Preparation - Topics C+E+G	13:00 - 13:30	Poster
<b>13:30</b> – 14:30	Presentations by Doctoral Students: 5 to 8	<b>13:30</b> – 14:30	Presen
14.20 15.45	Coffee Break & Poster Discussion - Topics C+E+G	<b>14:30</b> – 15:30	Coffee
<b>14:30</b> – 15:45	C+E+G	15:30 - 18:00	Assem
<b>15:45</b> – 16:45	Presentations by Doctoral Students: 9 to 12	18:00 - 18:15	Poster
16:45 - 17:00	Poster Removal - Topic C+E+G		

18:15	Bus departs to Visit of the Distillerie Franciacorta in Borgonato di Cortefranca and Social Dinner hosted by chef Stefano Cerveni at the Antico Borgo San Vitale	
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23:00 Bus returns to Brescia

### Tuesday, June 22, 2010

	8:30 - 9:00	Poster Preparation - Topic B
	<b>9:00</b> – 10:00	Keynote Lecture by Prof. Evelyn Wang on Nanoengineered Surfaces: Transport Phenomena and Thermal Management Applications
ow	<b>10:00</b> – 11:00	Coffee Break & Poster Discussion - Topic B
	<b>11:00</b> – 12:30	Presentations by Doctoral Students: 13 to 18
	<b>12:30</b> – 13:30	Lunch
	12:30 - 12:45	Poster Removal - Topic B
	13:00 - 13:30	Poster Preparation - Topic F
	<b>13:30</b> – 14:30	<b>Presentations by Doctoral Students: 19 to 22</b>
	<b>14:30</b> – 15:30	Coffee Break & Poster Discussion - Topic F
	15:30 - 18:00	Assemblea Generale Soci UIT
	18:00 - 18:15	Poster Removal - Topic F
		Bus departs to Gala Dinner hosted by chef

19:30	Bus departs to Gala Dinner hosted by chef Giuseppe Maffioli at the Carlo Magno Restaurant in Collebeato
22:00	Before dessert, <b>UIT president will announce the</b> <b>winner of the Student Presentations Contest</b>
23:30	Bus returns to Brescia

### Wednesday, June 23, 2010

9:00 - 9:30	Poster Preparation - Topics A + D
<b>9:30</b> – 10:30	Keynote Lecture by Prof. Michele Ciofalo on Unsteady Turbulence: Phenomena and Modelling
<b>10:30</b> – 11:30	Coffee Break & Poster Discussion -Topics A+D
<b>11:30</b> – 12:30	Round Table and Discussion on <i>Future</i> <i>Perspectives of Heat Transfer Research</i>
<b>12:30</b> – 13:30	Lunch
13:30	Congress Ends

# **STUDENT PRESENTATION CONTEST**

## Monday morning 11:30 - 12:30

PRESENTATION	SECTION	PAPER	PRESENTER	
1	F	A STAND-ALONE STANDING-WAVE THERMOACOUSTIC REFRIGERATOR	Allesina	
2	F	DISTRIBUTED ELECTRICITY GENERATION USING AN EXTERNAL COMBUSTION RINGBOM-STIRLING ENGINE HEATED BY AGRICULTURAL WASTES	Parmigiani	
3	F	DESIGN AND REALIZATION OF A BLACK-BODY CAVITY RECEIVER FOR MEASUREMENT OF CONCENTRATED SOLAR RADIATION THROUGH ADAPTIVE MIRRORS	Paganini	
4	E	ANALYSIS OF THE THERMAL-HYDRAULIC AND AEROSOLS BEHAVIOUR IN THE PHEBUS CONTAINMENT VESSEL DURING THE FPT1 TEST USING MELCOR AND ASTEC CODES	Mazzini	
Monday Afternoon 13:30 – 14:30				
PRESENTATION	SECTION	PAPER	Presenter	
5	А	THERMAL CONDUCTIVITY OF ORGANIC COMPOUNDS: A NEW RELATION IN THE TEMPERATURE RANGE Tr 0.30 ÷ 0.95	Sotte	
6	G	SULLA STIMA DEI PONTI TERMICI IN PANNELLI DI TAMPONAMENTO PREFABBRICATI	Luscietti	
7	G	SCENARI DI ENERGY RETROFIT DEL PATRIMONIO EDILIZIO RESIDENZIALE PUBBLICO: POLITICHE ENERGETICHE E RIDUZIONE DELLE EMISSIONI DI CO2 NELLA REGIONE EMILIA ROMAGNA	Belpoliti	
8	G	EFFECT OF TEST CONDITIONS ON THE EXPERIMENTAL DETERMINATION OF THERMAL CONDUCTIVITY OFWALLS BY MEANS OF HEAT FLOWMETERS	Borioli	
	Μ	ONDAY AFTERNOON 15:45 – 16:45		
PRESENTATION	SECTION	PAPER	AUTHOR	
9	В	THERMAL MODELLING OF LASER ABLATION SIMULATION BY NUMERICAL SOLUTION OF A THREE PHASE STEPHAN PROBLEM	Parissenti	
		MONO-DIMENSIONAL ENERGY BALANCE		

10	В	MONO-DIMENSIONAL ENERGY BALANCE EQUATION FOR A NONIDEAL LIQUID-LIQUID MIXTURE UNDERGOING PHASE SEGREGATION IN A SMALL CIRCULAR PIPE	Di Fede
11	D	TWO DIMENSIONAL FORCED CONVECTION NANOFLUIDS FLOW IN MICROCHANNEL USING SLIP VELOCITY AND JUMP TEMPERATURE BOUNDARY CONDITIONS	Akbarinia
12	D	NANOPARTICLE SIZE EFFECT ON THE CONVECTIVE HEAT TRANSFER OF A NANOFLUID FLOW INSIDE A MICROCHANNEL	Kalteh

# **STUDENT PRESENTATION CONTEST**

## TUESDAY MORNING 11:00 - 12:30

PRESENTATION	SECTION	PAPER	AUTHOR
13	С	A COMPARISON BETWEEN A PRESSURE PROJECTION METHOD AND A FULLY COUPLED MULTIGRID FEM NAVIER-STOKES SOLVER	Bassenghi
14	С	PREDICTION OF PRESSURE LOSSES AND LIQUID HOLDUP IN HORIZONTAL STRATIFIED AND STRATIFIED-WAVY GAS-LIQUID FLOW IN A PIPE	Calgaro
15	С	NUMERICAL STUDY OF VAPOR BUBBLE GROWING IN SUPERHEATED LIQUID	Magnini
16	С	WALL COOLING BY MEANS OF SYNTHETIC AND CONTINUOUS JETS	Monaco
17	С	ASSESSMENT AND TUNING OF CFD CAVITATION MODEL PARAMETERS USING ADVANCED OPTIMIZATION TECHNIQUES	Morgut
18	С	PARAMETER ESTIMATION PROCEDURE FOR GEOTHERMAL APPLICATIONS	Schiavi

### TUESDAY AFTERNOON 13:30 – 14:30

PRESENTATION	SECTION	PAPER	AUTHOR
19	С	MULTISCALE APPROACH FOR THE OPTIMAL DESIGN OF FLUID DISTRIBUTION SYSTEMS IN A MCFC STACK	Sciacovelli
20	С	DEVELOPMENT AND APPLICATION OF HIGH-ORDER DISCONTINUOUS CVFEM ALGORITHMS	Stipcich
21	С	VARIABLE-VISCOSITY EFFECTS IN TURBULENT CHANNEL FLOW	Zonta
22	С	DIRECT NUMERICAL SIMULATION OF FORCED CONVECTION OVER STEPS AT LOW PRANDTL NUMBER	Errico