

Preliminary Programme



UNITED NATIONS ENVIRONMENT PROGRAMME
INTERNATIONAL INSTITUTE OF REFRIGERATION
AREA EUROPEAN RAC ASSOCIATION
ASSOCIAZIONE TECNICI DEL FREDDO
RENEWABLE ENERGY INSTITUTE
CENTRO STUDI GALILEO

20th EUROPEAN CONFERENCE THE LATEST TECHNOLOGIES IN REFRIGERATION AND AIR CONDITIONING

*REFRIGERANTS, HEAT PUMPS, COLD CHAIN, ENVIRONMENT, ENERGY,
TRAINING, CERTIFICATION, LEGISLATION, STRANDARD, SAFETY*

UNDER THE AUSPICES OF:



8th – 9th June 2023

Politecnico di Milano, De Donato Room
Simultaneous translation: English - Italian

In Association with Global Leading Researchers and Experts from:
United Nations Environment Programme (UNEP)
United Nations Industrial Development Organization (UNIDO)
European Commission DG Clima
International Institute of Refrigeration (IIF-IIR)
Association Française du Froid (AFF)
AREA - ASERCOM - ASHRAE - AHRI - EPEE
Politecnico di Milano, Torino
Universities of Ancona, Genova, Padova
and all the AC&R European Associations



Politecnico di Milano
Piazza Leonardo Da Vinci, 32 - Milano (Italia)

Updated 26/04/2023

9 – 9.30 am, **Thursday** – 8th June 2023

General Introduction

**INTRODUCTION TO THE TOPICS OF THE CONFERENCE.
EUROPEAN AND GLOBAL RAC SITUATION. THE COLD CHAIN.
TECHNOLOGIES. EQUIPMENT AND COMPONENTS.
F-GAS AND REFRIGERANTS. ENERGY EFFICIENCY AND
RENEWABLES. POLICY AND REGULATIONS.**

M. Buoni Air Conditioning & Refrigeration Association – AREA
S. Wagner United Nations Environment Programme – UNEP
D. Coulomb International Institute of Refrigeration – IIF-IIR

9.30 am – 12.30 pm, **Thursday** – 8th June 2023

First Session

**NEW REFRIGERANTS AND FUTURE PERSPECTIVES IN
REFERENCE TO EU 517/2014, F-GAS REGULATION,
ENERGY SAVING.**

MODERATOR: **C. Zilio** Padova University
CHAIRPERSONS: **D. Coulomb** IIF-IIR, **S. Wagner** UNEP,
N. Kagawa JSRAE, **F. Polonara** TEAP-RTOC

**New low GWP refrigerants. Developments, perspectives and
forecasts on new alternative refrigerants. New synthetic
and natural refrigerants, pure and mixtures HFC, R32, HFO-
1234yf/ze/za, HFO mixtures, CO₂, ammonia, hydrocarbons;
secondary refrigerants. Mobile air conditioning.**

Speakers: D. Coulomb IIF-IIR – **F. Polonara** TEAP-RTOC -
N. Kagawa JSRAE – **G. Righetti** Padova University -
A. Pardiñas NTNU - **C. Malvicino** Stellantis - **C. Macri**
Daikin Chemical Europe - **J. De Bernardi** Honeywell -
F. Codella Chemours - **C. Marotta** General Gas -
M. Lorusso Nippon Gases Refrigerants

Debate

With the participants in the conference

Coffee break: 11 – 11.30 am

Lunch buffet: 1 – 2 pm

2 – 5.30 pm, **Thursday** – 8th June 2023

Second Session

**NEW COMPONENTS & EQUIPMENT WITH ALTERNATIVE
REFRIGERANTS, CONSIDERING THEIR ENERGY EFFICIENCY
AND ENVIRONMENTAL ISSUES, RESULTS AND UPDATES.**

MODERATORS: **E. Macchi**, **G. Lozza** PoliMi
CHAIRPERSONS: **D. Del Col** Padova University,
D. Coulomb IIF-IIR, **C. van de Sande** AREA

**Energy issues in relation to the air conditioning and
refrigeration components and plants optimization. Secondary
refrigerant plants, CO₂, HC systems. Compressors and
systems. Energy optimization. New components for domestic,
commercial, and industrial refrigeration and air conditioning.
Process and design. Lubricants for synthetic refrigerants.**

Speakers: M. Azzolin Padova University - **C. Raimondi**
Cominesi Angelantoni Industrie - **B. Bella** Emerson -
K. Nourrice Frascold - **M. Bassi** Embraco - **P. Olalla** Huayi
Compressor Barcelona - **P. Trevisan** Bitzer - **G. Dorin**
Officine Mario Dorin - **S. Filippini** LU-VE Group -
N. Galato Carel Industries - **S. Pompeo** ERRECOM

Special Session

WOMEN IN REFRIGERATION AND AIR CONDITIONING.

MODERATOR: **S. Wagner** UNEP

I. Colombo IIF-IIR - **C. Keyworth** INWIC

Debate

With the participants in the conference

AWARD: EU Women in Cooling Video Competition

Coffee break: 3 – 3.30 pm

Cocktail reception: 5.30 – 6.30 pm

PRESIDENTS & KEYNOTE SPEAKERS

9 – 10.30 am, **Friday** – 9th June 2023

3 – 5 pm, **Friday** – 9th June 2023

Third Session

POLICY: GLOBAL F-GAS PHASE DOWN AND EU REGULATION REVIEW, TRAINING AND CERTIFICATION.

MODERATOR: **S. Wagner** UNEP

CHAIRPERSONS: **TBA** DG Clima, **R. Patten** EPEE, **C. Perry** EIA, **M. Masini** ASERCOM, **TBA** AHRI, **F. Mastrapasqua** Assocold, **C. Van De Sande** AREA

The Kigali Amendment: HFC Phase-down, flammable refrigerants' standards, illegal refrigerants, inspections, logbook, maintenance. Containment, recovery and recycling. Training and certification in Europe and Italy. Safety issues. Products and components' certification.

Speakers: TBA EU Commission DG Clima - **R. Patten** EPEE - **C. Perry** EIA - **C van de Sande** AREA - **M. Masini** ASERCOM - **F. Mastrapasqua** Assocold - **M. Pushkareva** Öko-Recherche

11 am – 2.30 pm, **Friday** – 9th June 2023

Fourth Session

GREEN COOLING, HEAT PUMPS AND ENERGY EFFICIENCY.

MODERATOR: **M. Perino** PoliTo

CHAIRPERSONS: **F. Mehboob** ASHRAE, **F. Scuderi** Eurovent, **X. Li** CAR, **A. Voigt** Cool Coalition, **L. Tagliafico** Genova University, **L. Rollino** C2R, CSG

European Green Deal, ecodesign. Energy efficiency in plants. Heat pumps, cooling with absorption and adsorption plants. Renewable energy and chemistry in air conditioning and refrigeration. Space cooling. Evaporative cooling, district cooling and magnetic cooling.

Speakers: M. Perino PoliTo - **F. Mehboob** ASHRAE - **F. Scuderi** Eurovent - **A. Voigt** Cool Coalition - **E. Devin** AFF - **X. Li** CAR - **G. Di Stefano** Assoclimate - **L. Rollino** C2R, Centro Studi Galileo - **T. Funder-Kristensen** Danfoss - **A. Bocanegra** Genova University - **A. Pastore** Cambridge

Coffee breaks: 10.30 – 11 am / 2.30 – 3 pm

Lunch buffet: 1 – 2 pm

Fifth Session

THE COLD CHAIN, FOOD AND VACCINES DISTRIBUTION AND CONSERVATION, COLD STORAGE AND TRANSPORT, CONTROLS AND DATA LOGGERS.

MODERATOR: **D. Coulomb** IIF-IIR

CHAIRPERSONS: **S. Corgnati** PoliTo, **TBA** UNIDO, **M. Sakandé** U-3ARC, **E. Devin** AFF

New technology in the cold chain: vaccines and food preservation; vehicles, trains, ships, cold storages; applications in commercial and domestic refrigeration, supermarkets, hospitals, vaccination centres and industry. Energy saving optimization. Solar refrigeration. Insulation; environmental control in food processes, safety control in the cold chain ATP.

Speakers: TBA UNIDO - **S. El Harch** U-3ARC - **TBA** CNR Padova - **K. Berglöf** ClimaCheck - **D. Coulomb** IIF-IIR

Debate

With the participants in the conference

Conclusions and Recommendations

D. Coulomb International Institute of Refrigeration – IIF-IIR
S. Wagner United Nations Environment Programme – UNEP
M. Buoni Air Conditioning and Refrigeration Association – AREA

Conference Organizer & Secretariat

CENTRO STUDI GALILEO & ASSOCIAZIONE TECNICI DEL FREDDO
Tel. +39 0142 452403 | www.centrogalileo.it

RENEWABLE ENERGY INSTITUTE
Tel. +44 131 4469479 | www.renewableinstitute.org/

To participate & for info, please contact:
conference@centrogalileo.it

Participation fee to the conference:

- **Euro 450 + VAT (22%)**

SONJA WAGNER, *Programme Officer*
United Nations Environment Programme, OzonAction – UNEP

DIDIER COULOMB, *Director General*
International Institute of Refrigeration – IIF-IIR

TBA
United Nations Industrial Development Organization – UNIDO

TBA
European Commission, Climate Action DG Clima

FAROOQ MEHBOOB, *President*
American Society of Heating and Air-Conditioning Engineers – ASHRAE

XIANTING LI, *Executive Board Member*
Chinese Association of Refrigeration – CAR

RUSSEL PATTEN, *Director General*
European Partnership for Energy and the Environment – EPEE

NOBORU KAGAWA, *Board Member*
Japan Society of Refrigerating and Air Conditioning Engineers – JSRAE

COEN VAN DE SANDE, *President*
Air conditioning and Refrigeration European Association – AREA

CLARE PERRY, *Climate Campaign Leader*
European Investigation Agency – EIA

MARCO MASINI, *President of the Association of European Refrigeration Component Manufacturers – ASERCOM*

FRANCESCO SCUDERI, *Secretary General*
European Industry Association – Eurovent

MADI SAKANDÉ, *President of the Union of Associations of African Actors in Refrigeration and Air Conditioning – U-3ARC*

ERIC DEVIN, *Secretary General*
Association Française du Froid – AFF

ANDREA VOIGT, *Executive Board Member*
Cool Coalition

GIACOMO DI STEFANO, *Technical Officer*
Associazione costruttori sistemi climatizzazione – Assoclimate

FRANCESCO MASTRAPASQUA, *President*
Associazione Costruttori Tecnologie per il Freddo – ASSOCOLD

ENNIO MACCHI, *Professor Emeritus* at Politecnico di Milano
GIOVANNI LOZZA, *Professor Energy Dept* at Politecnico di Milano

STEFANO CORGNATI, *Professor* at Politecnico di Torino

FABIO POLONARA, *Co-chair TEAP RTOC & Director Industrial Engineering Dept.*, Università Politecnica delle Marche

LUCA TAGLIAFICO, *Professor* at Università di Genova

CLAUDIO ZILIO, *Professor* at Università di Padova
DAVIDE DEL COL, *Professor* at Università di Padova

LUCA ROLLINO, *Managing Director* at Xori Group & *Expert Trainer* at Centro Studi Galileo