

VIETNAM am = Asia am + America (J-1) 05-12pm + Brazil 10-12pm
 VIETNAM pm = Asia pm + Africa/Europa am + Brazil 05-07am

KN: Keynotes

O: Oral presentations

MONDAY 11 SEPTEMBER

08:00-10:00

Opening Session

Chairs: *Astrid Nehlig & Benoît Bertrand*

- Astrid Nehlig - ASIC president
- Dao The Anh - LOC President
- Andrea Illy - Honorary President
Regenerative agriculture and beyond in the coffee industry
- Phan Việt Hà (WASI) & Buy Quang Dang (VAAS)
Coffee industry in Vietnam

10:00-10:30

Break

Keynote lecturer & Oral presentations

10:30-12:00

Session 8: Coffee Chemistry & Sensory sciences

Chairs: *Valérie Leloup & Rodrigo Cunha*

10:30-11:15

- **S8-KN** - Coffee Chemistry: Aroma, Taste and Beyond
Devin Peterson (Ohio State University, USA)

11:15-11:45

- **S8-O-01** - A new Coffee Brewing Control Chart relating sensory properties and consumer liking to brew strength, extraction yield, and brew ratio
Guinard Jean-Xavier (UC Davis Coffee Center, University of California, Davis, California, USA)
- **S8-O-02** - Sensory Analysis of the Flavor Profile of Full Immersion Hot, Room Temperature, and Cold Brewed Coffee over Time - *Liang Jiexin (UC Davis Coffee Center, University of California, Davis, California, USA)*
- **S8-O-03** - Alkyl furan formation in coffee - Role of precursors and impact of the roast degree on their origin
Poisson Luigi (Nestlé PTC Beverage Orbe, Société Produits Nestlé SPN, Orbe, Switzerland)

11:45-12:00

- Questions / Answers

12:00-13:30

Lunch

Keynote lecturers & Oral presentations

13:30-16:00

Session 9: Consumption-Health & Safety

Chairs: *Astrid Nehlig & James Coughlin*

13:30-14:15

- **S9-KN-1** - Coffee consumption and risk of type 2 diabetes and cardiovascular diseases
Rob Van Dam (The G. Washington University, USA)

14:15-15:00

- **S9-KN-2** - Effects of regular coffee consumption on cardio vascular diseases: findings from the UK biobank
Peter Kistler (Melbourne University, Australia)

15:00-15:40

- **S9-O-01** - Coffee silverskin: A potential value-added by-product with similar effects as coffee on sugar metabolism
Barreto-Peixoto Juliana A. (Laboratory of Bromatology and Hydrology, Department of Chemical Sciences, REQUIMTE/LAQV, Faculty of Pharmacy, University of Porto, Porto, Portugal)
- **S9-O-02** - Combining netnography and means end chain analysis to research coffee brewing habits
Guinard Jean-Xavier (UC Davis Coffee Center, University of California, Davis, California, USA)
- **S9-O-03** - Influence of Roasting on Total Phenolic Content and Antioxidant Activity of Philippine Coffee
Mojica Ruel (Cavite State University, Indang, Cavite, Philippines)
- **S9-O-04** - Evaluation of taste and aroma of coffee and its relation to electroencephalography using emotion analyzer
Hanzawa Taku (R&D Department, UCC Ueshima Coffee Co., Ltd., Kobe, Hyogo, Japan)

15:40-16:00

- Questions / Answers

16:00-16:30 Break

Oral presentations

16:30-17:30

Session M1: Miscellaneous 1

Chairs: *Kifle Belachew Bekele & Luu Ngoc Quyen*

16:30-17:10

- **M1-O-01 - The expansion of Geographical Indications on coffees: opportunities and challenges**
Marie-Vivien Delphine (Cirad, France)
- **M1-O-02 - Smallholder-ready mobile pictures for coffee crop yield prediction**
Rivera Palacio Juan Camilo (Environment and Natural Sciences, Brandenburgische Technische Universität (BTU) Cottbus-Senftenberg, Cottbus, Germany)
- **M1-O-03 - Microbial profiles of Brazilian *Coffea arabica* and *Coffea canephora***
Louzada Pereira Lucas (Coffee Design, Instituto Federal do Espírito Santo, Venda Nova do Imigrante, ES, Brazil)
- **M1-O-04 - Economic Analysis of the Technical Efficiency and Profitability of Coffee Production in Kogi state, Nigeria**
Orisasona Taiye (Economics and Extension, Cocoa Research Institute of Nigeria, Ibadan, Nigeria)

17:10-17:30

- **Questions / Answers**



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TUESDAY 12 SEPTEMBER

Keynote lecturer & Oral presentations

08:00-09:45

Session 2: Plant Pathology & Protection

Chairs: *Maria de Ceu Silva & TBC*

08:00-08:45

- **S2-KN - Overcoming pests, diseases and climate variability: the tale of Colombian coffee**
Gaitán Alvaro (Cenicafé, Federación Nacional de Cafeteros, Manizales, Caldas, Colombia)

08:45-09:25

- **S2-O-01 - A chromosome-level genome resource for studying virulence mechanisms and evolution of the coffee rust pathogen *Hemileia vastatrix***
Tobias Peri (The University of Sydney, Camperdown, NSW, Australia)
- **S2-O-02 - BRE4: Advancing Sustainable Coffee Plantations with a Cost-Effective Bionematicide**
Asyiah Iis Nur (Biology Education, Universitas Jember, Jember, East Java, Indonesia)
- **S2-O-03 - Climate change and its impact on economically important coffee diseases in India**
Sudha Muniswami (Central Coffee Research Institute, Plant Pathology Division, Coffee Board of India, Chikmagalur, Karnataka, India)
- **S2-O-04 - Can commercial bioinoculants available on the market in Vietnam protect coffee seedlings from *Meloidogyne incognita* infestation under controlled conditions?**
Nguyen Van Long (School of Life and Environmental Sciences, Deakin University, Melbourne, Victoria, Australia)

09:25-09:45

- **Questions / Answers**

09:45-10:15

Break

Keynote lecturers & Oral presentations

10:15-12:00

Session 5: Climate change - Sustainability - Labels

Chairs: *Philippe Vaast & Dao The Anh*

10:15-11:00

- **S5-KN - Integrating climate risk management and insurance for sustainable coffee production in a changing climate**
Kath Jarrod (School of Agriculture and Environmental Science, University of Southern Queensland, Toowoomba, QLD, Australia)

11:00-11:40

- **S5-O-01 - Coffee system archetypes to prioritize decarbonization and regenerative agriculture practices**
van Asten Piet (ofi (Olam Food Ingredients), Singapore, Singapore)
- **S5-O-02 - Using farmer knowledge to promote suitable shade tree species with ShadeTreeAdvice**
Rigal Clément (UMR Absys, CIRAD, Montpellier, France)
- **S5-O-03 - Detecting deforestation in Vietnam coffee growing regions**
Browning David (Enveritas Inc, Old Greenwich, Connecticut, USA)
- **S5-O-04 - Innovative strategies to attract youth and women participation in the coffee value chain in Tanzania**
Jeremiah Magesa Marco (Technology Transfer, Training & Advocacy, Tanzania Coffee Research Institute (TaCRI), Moshi, Kilimanjaro, Tanzania)

11:40-12:00

- **Questions / Answers**

12:00-13:30

Lunch

Oral presentations

13:30-15:15

Session 8: Coffee Chemistry & Sensory sciences

Chairs: *Sebastian Opitz & Jean-Xavier Guinard*

13:30-14:10

- **S8-O-04 - New insights into the complex world of coffee flavour chemistry**
Fisk Ian (International Flavour Research Centre, University of Nottingham, Loughborough, Leicestershire, United Kingdom)
- **S8-O-05 - Smart on-line coffee roasting process control by MassSpectrometry: Real-Time prediction model for coffee-roasting degree, brew antioxidant capacity and sensory attributes**
Zimmermann Ralf (Chair of Analytical Chemistry, University of Rostock, Rostock, Germany)
- **S8-O-06 - The chemistry behind the coffee flavour evolution over time: an omicapproach**
Liberto Erica (Dipartimento di Scienza e Tecnologia del Farmaco, Università degli Studi di Torino, Torino, Italy)
- **S8-O-07 - Sensory and metabolic profiles of *Coffea canephora* accessions from DR Congo**
Bollen Robrecht (Meise Botanic Garden, Meise, Belgium)

14:10-14:30

- Questions / Answers

14:30-15:00

- **S8-O-08 - Home-brewed coffee - The influence of temperature, flow and grind size on aroma composition of espresso coffee**
Cleve Nina (Department of Sensory Analytics and Technologies, Fraunhofer Institute for Process Engineering and Packaging IVV, Freising, Germany)
- **S8-O-09 - Influencing Espresso bitterness and sourness based on extraction kinetics**
Schmieder Benedikt (Biothermodynamics, Technical University Munich, Freising, Germany)
- **S8-O-10 - Model-Based Prediction of Espresso Taste – Brewing Control Chart for Varying Flow Rate, Temperature, and Coffee to Water Ratio**
Briesen Heiko (Process Systems Engineering, TU Munich, Freising, Germany)

15:00-15:15

- Questions / Answers

09:45-10:15

Break

Keynote lecturer & Oral presentations

15:45-17:30

Session 1: Coffee plant science

Chairs: *Benoît Bertrand & TBC*

15:45-16:30

- **S1-KN - Root microbiota and induced systemic resistance**
Corné Pietersen (Utrecht, The Netherlands)

16:30-17:10

- **S1-O-01 - Arbuscular Mycorrhizal Fungi (AMF) Associations of Robusta Coffee (*Coffea canephora*) across a Management Intensity Gradient in the DR Congo using Illumina Sequencing**
Broeckhoven Ieben (Dep. of Earth and Environmental Sciences, KU Leuven, Leuven, Belgium)
- **S1-O-02 - Selection for high yield, cup-quality and bean composition in coffee using Multi-trait Genotype-Ideotype Distance Index**
Aberkane Hafid (Nestle Institute for agricultural sciences, Plant science unit, Notre-Dame-d'Océ, France)
- **S1-O-03 - Transcriptional control of the endosperm maturation program and galactomannan cell wall deposition in *Coffea* species**
Joët Thierry (DIADE, IRD, Montpellier, France)
- **S1-O-04 - Genetic diversity and structure of *Coffea arabica* and *Coffea racemosa* in Mozambique**
Tapaça Inocência da Piedade Ernesto (Instituto Superior de Agronomia, Lisbon, Portugal, Lisbon)

17:10-17:30

- Questions / Answers

18:00-20:00

ASIC Board meeting

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O: Oral presentations

WEDNESDAY 13 SEPTEMBER

Poster presentations

08:00-09:45

Session Poster

09:45-10:15

Break

Oral presentations

10:15-12:00

Sessions 3 & 5

Chairs: *Piet van Asten & TBC*

Session 5: Climate change - Sustainability - Labels

10:15-10:55

- S5-O-05 - Results of a TEEB AgriFood project evaluating the sustainability of public policy scenarios in the coffee sector in Mexico

Manson Robert (Functional Ecology Network, Instituto de Ecología, A.C., Xalapa, Veracruz, Mexico)

- S5-O-06 - 'Beyond the chain': landscape approaches to sustainability in the coffee sector

Neilson Jeffrey (University of Sydney, Darlington, NSW, Australia)

- S5-O-07 - What roles sustainability standards and programs play in coffee Robusta smallholders' capacity to harness the shift to quality in Vietnam?

Tran Thi Minh Ngoc (International Centre for Research in Agroforestry (ICRAF), Hanoi, Vietnam)

- S5-O-08 - Connecting Geographical Indication (GI) and sustainable practices with Hindu Philosophy Tri Hita Karana in the island of Bali

Fabianus Reza (National Coop, Ministry of Cooperatives & SMEs Republic of Indonesia, Jakarta, DKI Jakarta, Indonesia)

10:55-11:15

- Questions / Answers

Session 3: Farm management

11:15-11:45

- S3-O-01 - Evaluating water requirements of Robusta coffee trees to reduce irrigation

Rigal Clément (UMR Absys, CIRAD, Montpellier, France)

- S3-O-02 - Contrasted agronomical and physiological responses of five *Coffea arabica* genotypes under soil water deficit in the field in Northwest of Vietnam

Sarzynski Thuan (DIADE, CIRAD, Ho Chi Minh, Vietnam)

- S3-O-03 - Root traits and biomass productions of drought resistant and susceptible arabica coffee varieties growing under contrasting watering regimes

Adem Mohammed Worku (Department of Horticulture and Plant Sciences, Jimma University, Jimma, Ethiopia)

11:45-12:00

- Questions / Answers

12:00-13:30

Lunch

Keynote lecturers & Oral presentations

13:30-15:15

Session 7: Roasted coffee Technology & Processing

Chairs: *Robert Farr & TBC*

13:30-14:15

- S7-KN - Expanding the flavour space of coffee: Impact of Species, Processing and Roasting

Opitz Sebastian E. W. (Analytical Chemistry unit and Coffee Excellence Center, Zurich University of Applied Sciences, Waedenswil, Switzerland)

14:15-14:55

- S7-O-01 - Controllability of the coffee roasting process

Botha Cila (School of Chemical and Minerals Engineering, North-West University, Potchefstroom, South Africa)

- S7-O-02 - Physical and Chemical Responses of Robusta Coffee Beans to Superheated Steam Roasting
Severini Carla (Department DAFNE - Lab of Emerging Technology and Food Formulation, University of Foggia, Foggia, Italy)
- S7-O-03 - Digital Twin-Assisted Optimization of the Coffee Roasting Process
Tück Sebastian (Research and Innovation, PROBAT AG, Emmerich am Rhein, Germany)
- S7-O-04 - A new rugged photoionization mass spectrometer for on-line process analysis in industrial coffee roasting
Zimmermann Ralf (Chair of Analytical Chemistry, University of Rostock, Rostock, Germany)

14:55-15:15 • Questions / Answers

15:15-15:45 **Break**

Keynote lecturer & Oral presentations

15:45-17:30 **Sessions 4 & 6**

Chairs: *Luciano Navarini & Heiko Briesen*

Session 6: Biochemistry & Biotechnology of green coffee

- 15:45-16:30 • S6-KN - Transmuting coffee by-products into eatable and non-eatable products
Adriana Farah (Rio, Brazil)

- 16:30-17:10 • S6-O-01 - Prevalence of mycotoxigenic fungi and Ochratoxin A in green coffee beans (*Coffea arabica* L.)
Hagos Legese (Ethiopian Institute of Agricultural Research, Addis Abeba, Ethiopia)
- S6-O-02 - Coffee pulp byproduct – stabilization and characterization for a potential economic boost as a source of carbohydrates
Passos Cláudia P. (LAQV/REQUIMTE, Department of Chemistry, University of Aveiro, Aveiro, Portugal)
- S6-O-03 - Oligosaccharides and Cyclitols derivatives in green *Coffea arabica* from different geographical origins
De Angelis Elisabetta (Aromalab AREA Science Park, illycaffè spa, Trieste, Italy)

Session 4: Green coffee processing

- S4-O-01 - Comparative evaluation of effect of processing methods on coffee quality at Jimma, Ethiopia
Banti Misgana (Food Science and Nutrition Research Directorate, Ethiopian Institute of Agricultural Research, Addis Ababa, Oromia, Ethiopia)

17:10-17:30 • Questions / Answers

17:30-18:30 **ASIC General Assembly**

19:00 **Conference Dinner**



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O: Oral presentations

THURSDAY 14 SEPTEMBER

Oral presentations

08:00-09:45

Session 1: Coffee plant science

Chairs: *André Charrier & Hafid Aberkane*

08:00-08:40

- **S1-O-05** - Leaf sugar metabolomic profiling reveals differences between *Coffea arabica* cultivars in two locations of Cerrado Mineiro (Brazil)
Campos Carréra Jéfryne (Departamento de Biologia, Universidade Federal de Lavras, Lavras, Minas Gerais, Brazil)
- **S1-O-06** - Genome-wide association study identified SNPs and genes related to *Meloidogyne paranaensis* resistance in *Coffea arabica*
Pereira Luiz Filipe (Plant Biotechnology Lab, Instituto de Desenvolvimento Rural do Paraná, Londrina, PR, Brazil)
- **S1-O-07** - The Innovea Global Coffee Breeding Network
Humphrey Tania (World Coffee Research, Portland, Oregon, USA)
- **S1-O-08** - Genetic diversity of *Coffea arabica*: significant update for its conservation and optimal use for breeding
Benti Tadesse (Ethiopian Institute of Agricultural Research (EIAR), Jimma, Oromiya, Ethiopia)

08:40-09:00

- Questions / Answers

09:00-09:30

- **S1-O-09** - Heterosis in F1 Arabica hybrids and its use under different agronomic conditions
Bertrand Benoît (DIADE/COFFEEADAPT/BIOS, CIRAD, Matagalpa, Nicaragua)
- **S1-O-10** - Heterosis Breeding: A prospective strategy for Arabica coffee improvement in India
Das Divya Kallingapuram (Plant Breeding and Genetics, Central Coffee Research Institute, Chikkamagaluru, Karnataka, India)
- **S1-O-11** - The Democratic Republic of the Congo, the cradle of cultivated Robusta coffee (*Coffea canephora*), can we safeguard its coffee genetic resources of world importance?
Stoffelen Piet (Meise Botanic Garden, Meise, Belgium)

09:30-09:45

- Questions / Answers

09:45-10:15

Break

Oral presentations

10:15-12:00

Session M2: Miscellaneous 2

Chairs: *Chahan Yeretzian & Luigi Poisson*

10:15-10:55

- **M2-O-01** - New methodology to calculate the caloric value of traditional espresso coffee: bridging the gap between legislation and coffee chemistry
Navarini Luciano (illycaffè spa, Trieste, Italy)
- **M2-O-02** - Flavor Components of Coffee Beans Analyzed by headspace solid-phase microextraction / gas chromatography-mass spectrometry and Electronic Sensor Techniques
Chen Zhenjia (Coffee sciences, Coffee engineering research center of China, Mangs, PR China)
- **M2-O-03** - Influence of fuel types on roasting results and sustainability
Koziorowski Thomas (R&D, Probat AG, Emmerich am Rhein, Germany)
- **M2-O-04** - Zero Discharge Water Treatment at Coffee Wet Mill
Perotti Ermanno (Upstream and Global Origins Innovation, Sucafina, Ho Chi Minh - Rieti, Vietnam)

10:55-11:15

- Questions / Answers

11:15-11:45

- **M2-O-05** - Species and Geographical Origin Authentication of Philippine Coffee using XRF-based Multi-element and Stable Isotope Ratio Profiling Combined with Chemometric tools
Tan Kevin Neil (Chemistry Department, De La Salle University, Manila, Philippines)

- **M2-O-06 - Variability and association between biochemical constituents and organoleptic quality attributing traits in Ethiopian coffee (*Coffea arabica* L.) accessions**
Weldemichael Getachew (Coffee and tea research program, Ethiopian Institute of Agricultural Research, Jimma, Oromiya, Ethiopia)
- **M2-O-07 - Genetic Variation Among Coffee Berry Borer (CBB) Localities in Jamaica**
Myrie Ameka (University of Regensburg, Regensburg, Germany)

11:45-12:00

- **Questions / Answers**

12:00-13:30

Lunch

Oral presentations

13:30-15:15

Session 2: Plant Pathology & Protection

Chairs: *Alvaro Gaitàn & Nayani Prakash*

13:30-14:10

- **S2-O-05 - Integrative transcriptomic and metabolomic approaches to unravel the resistance profile of Kawisari coffee against *Hemileia vastatrix***
Silva Maria do Céu (CIFC - Centro de Investigação das Ferrugens do Cafeeiro, Universidade de Lisboa, Instituto Superior de Agronomia, Oeiras, Portugal)
- **S2-O-06 - Diversity and Antagonistic Potential of Mycoparasites on Coffee Leaf Rust *Hemileia vastatrix* in Ethiopia**
Bekele Kifle Belachew (Plant Protection Department of Coffee Pathology Section, Ethiopian Institute of Agricultural Research, Jimma Agricultural Research Center, Jimma, Oromia, Ethiopia)
- **S2-O-07 - Coffee berry disease: a century old anthracnose of green berries of Arabica coffee (*Coffea arabica* L.) in Africa**
Adugna Girma (Horticulture and Plant Sciences, Jimma University, Jimma, Ethiopia)
- **S2-O-08 - Field performance of Arabica coffee genotypes for growth traits, yield, bean quality and disease tolerance**
Aluka Pauline (Coffee Cocoa Variety Improvement and Management, National Coffee Cocoa Research Institute (NaCORI), Mukono, NA, Uganda)

14:10-14:30

- **Questions / Answers**

14:30-15:00

- **S2-O-09 - First report of a genome sequence resource of *Colletotrichum kahawae*, the causal agent of coffee berry disease**
Azinheira Helena (Instituto Superior de Agronomia, Lisbon, Portugal)
- **S2-O-10 - Diversity and Dynamics of Fungal Endophytes in Coffee: Implications for Plant Health and Agriculture**
Castillo Gonzalez Humberto (Department of Plant Science and Landscape Architecture, University of Maryland, College Park, Maryland, USA)
- **S2-O-11 - Potential association of HCF164, a chloroplast nuclear-encoded thioredoxin-like protein, with *Coffea* SH9 resistance factor against *Hemileia vastatrix***
Guerra-Guimarães Leonor (CIFC - Centro de Investigação das Ferrugens do Cafeeiro, Instituto Superior de Agronomia, Universidade de Lisboa, Oeiras, Portugal)

15:00-15:15

- **Questions / Answers**

15:15-15:45

Closing Session

Chairs: *Astrid Nehlig & Benoît Bertrand*

16:00

Departure to Buon Ma Thuot

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CONFERENCE FIELD TRIP TO BUON MA THUOT

Buon Ma Thuot - The Metropolis of Coffee of Vietnam

Thursday 14 September 2023 - Day 4

- Noi Bai airport to Buon Me Thuot airport**
- 19:20 • Flight from **Hanoi City to Buon Me Thuot City**
-
- 21:05 **Buon Me Thuot City**
- Have dinner at the local restaurant
-
- 21:30 **Muong Thanh Luxury Buon Ma Thuat Hotel 5***
- Check-in to your hotel

Friday 15 September 2023 - Day 5

- Muong Thanh Luxury Buon Ma Thuat Hotel 5***
- 07:00 • Have breakfast at the hotel
-
- The Western Highlands Agro-Forestry Scientific and Technical Institute**
- 08:00-11:30 • Visit the **Western Highlands Agriculture and Forestry Science Institute (WASI)** and the coffee field in Buon Ma Thuot City
- Visit a coffee household and the **Eatu Coffee Cooperative factory** to see their coffee-making process from harvest to final products for export. Enjoy a coffee drink.
-
- Buon Me Thuot City**
- 11:30 • Have lunch at a local restaurant
-
- Sightsee in Buon Ma Thuot City with the following schedule**
- 13:00-17:00 • Visit the **Ethnographic Museum**
- Visit the **World Coffee Museum** by Trung Nguyen Legend – the biggest coffee producer in Vietnam
-
- Muong Thanh Luxury Buon Ma Thuat Hotel 5***
- 17:00 • Travel back to the hotel
-
- Buon Me Thuot City**
- 19:00 • Have dinner at a local restaurant
- 21:00 • Enjoy personal activities

Saturday 16 September 2023 - Day 6

- Muong Thanh Luxury Buon Ma Thuat Hotel 5***
- 07:00 • Have breakfast at the hotel
-
- TBA**
- 08:00-11:00 • Visit a **local coffee-processing Farm**
- 11:30-13:00 • Enjoy personal activities
-
- Buon Ma Thuot Airport to Noi Bai Airport / Tan Son Nhat Airport**
- 15:00 • Depart to **Buon Ma Thuat Airport for flight to Hanoi City or Ho Chi Minh City** - End of the trip