

# PROGRAMME

## ORAL PRESENTATIONS

### THURSDAY, November 3

09h00 - 09h30 Welcome

**PLENARY TALK** Chairman: Mariano Martín

09h30 - 10h30

**Recent advances in computational methods for the discrete and continuous optimization of sustainable process and energy systems**

*Ignacio E. Grossmann (Carnegie Mellon University)*

10h30 - 11h15 Coffee break

**RAW MATERIALS I** Chairman: Massimiliano Errico

11h15 - 11h35

**Recovery of secondary metabolites from *Gnaphalium viscosum* (Kunth) by conventional and supercritical extraction techniques - Preliminary results**

*S. Boyadzhieva (Institute of Chemical Engineering, Bulgarian Academy of Sciences)*

11h35 - 11h55

**Analysis of operating variables of the lipid extraction process using different samples of sewage sludge**

*C. Pastore (Consiglio Nazionale delle Ricerche (CNR))*

11h55 - 12h15

**Winery by-products as feedstocks for bioprocesses**

*M. Hijosa Valsero (Instituto Tecnológico Agrario de Castilla y León (ITACyL))*

12h15 - 12h30 Break

**RAW MATERIALS II** Chairman: Carlo Pastore

12h30 - 12h50

**Integrating intensive livestock and cropping systems: sustainable design and location**

*M. Martín (Universidad de Salamanca)*

12h50 - 13h10

**Recovery of hydrolysable tannins from an industrial chestnut wood waste destined to pellet production**

*P. Fernández (Universidad de Oviedo)*

13h10 - 15h30 Lunch break

**UNIT MODELLING** Chairman: Antonio Sánchez

15h30 - 15h50

**Modelling and parameter estimation of a photobioreactor for wastewater treatment**

*I. Bausa (Universidad de Valladolid)*

15h50 - 16h10

**Continuous processes for the intensification of commodity chemicals production by microbial fermentation**

*G. Lye (University College London)*

16h10 - 16h30

**Valorising the skin of prickly pear and nopal pads**

*M. Papadaki (University of Patras)*

16h30 - 17h30 Poster session

17h30 - 18h30 Break

19h00 Visit to Historical Library

(Meeting point: 18h30 Colegio Arzobispo Fonseca; 18h55 Historical University Building)

21h00 Gala dinner

### FRIDAY, November 4

**PROCESS DESIGN I** Chairman: Henrique Matos

09h00 - 09h20

**Delivering carbon-negative multi-products from biorefineries: a life cycle assessment perspective**

*A. Galán (Universidad de Jaén)*

09h20 - 09h40

**Multiproduct biorefinery based on olive tree pruning coupled with carbon, carbon and storage: a techno-economic analysis and life cycle assessment**

*S.E. Fanourakis (Universitat Rovira i Virgili)*

09h40 - 10h00

**Local biomass biorefineries: a practical approach to Sustainable Development Goals based on olive oil production**

*E. Castro (Universidad de Jaén)*

10h00 - 10h20

**When is bioethanol a suitable decarbonization route?**

**Comparative life cycle assessment**  
*A. Irabien (Universidad de Cantabria)*

10h20 - 10h40

**An integrated process for the production of 2-methylfuran from biomass**

*I. Gandarias (Universidad del País Vasco)*

10h40 - 11h00

**Membrane separation of ABE products from fermentation broths**

*C.A. Arregoitia-Sarabia (Universidad de Cantabria)*

11h00 - 11h45 Coffee break

**PROCESS DESIGN II** Chairman: Angel Galán

11h45 - 12h05

**Biorefinery alternatives in a pulp and paper mill: evaluation through multi-criteria analysis**

*A. Coz (Universidad de Cantabria)*

12h05 - 12h25

**Optimal integrated plant for biodegradable polymers production**

*J. E. Roldán (Universidad de Salamanca)*

12h25 - 12h45

**Shifting from fossil to renewable feedstock: the case of production of 1,3butadiene from bioethanol**

*F. Vidal-Barrero (Universidad de Sevilla)*

13h00 - 15h00 Lunch break

16h00 - 18h00 Research, Innovation and Exchange Committee meeting