



# BENCHTOP NMR: FROM ACADEMIA TO INDUSTRY

Caparica, Portugal  
September 2022

## BENCHTOP NMR: FROM ACADEMIA TO INDUSTRY – Program

### Day 1 28-09-2022, 1:15 to 5:45 PM (GMT)

**13:15** – Opening Session

**13:30** – "Theory of NMR: Important aspects to have in mind dealing with low field instruments" – *Tiago Bueno de Moraes (ESALQ/USP, Brazil)*

**14:00** – "Aspects of Benchtop NMR Instrumentation" – *Luiz Alberto Colnago (EMBRAPA, Brazil)*

#### Topic 1: Online Reaction monitoring

**14:30** – "Modular process control with compact NMR spectroscopy: From field integration to fully automated data analysis" – *Michael Maiwald (BAM, Germany)*

**15:00** – "Benchtop NMR Spectroscopy: Applications in Academia and Industry" – *Federico Casanova (Magritek)*

**15:30** – Coffee Break

#### Topic 2: Food and Agriculture

**16:00** – "Low field NMR in plant science and agriculture" – *Maja Musse (INRAE, France)*

**16:30** – "Process and Quality control in food and agroindustry using TD-NMR" – *Daniel Consalter (FIT)*

**17:00** – Remote demonstration – Bruker (45 min) 

### Day 2 29-09-2022, 11:00 to 6:00 PM (GMT)

**11:00** – Remote demonstration – Stelar (45 min) 

**11:45** – Remote demonstration – Magritek (45 min) 

**13:15** – Opening Session

#### Topic 3: Applications to Polymers and Rubbers

**13:30** – "NMR Relaxometry in polymer nano-composites" – *Pedro Sebastião (IST, Portugal)*

**14:00** – "Probing microstructure and dynamics of solid polymers by time domain NMR at low field" – *Eduardo Ribeiro de Azevêdo (IFSC, USP, Brazil)*

#### Topic 4: Applications in Pharmaceuticals and Cosmetics

**14:30** – "Benchtop TD NMR in Pharma, Applications Across Molecular Modalities" – *Anuji Abraham (Bristol-Myers Squibb, USA)*

**15:00** – "Benchtop NMR solutions for small molecules and biotherapeutics analysis" – *Ana Codina (Bruker)*

**15:30** – Coffee Break

#### Topic 5: Applications in Oil, Gas & Energy Industry

**16:00** – "TD NMR: solving problems at the Oil industry" – *Hercílio De Angeli Honorato (Petrobrás, Brazil)*

**16:30** – "Inline NMR relaxometry for complex multiphase (Oil/Gas/Water) flow metering. The potential to solve a historical and industry-wide challenge" – *Dante Pusiol (Spinlock)*

**17:00** – "Analysis of energy storage components using multinuclear benchtop NMR spectroscopy" – *Juan Araneda (Nanalysis)*

#### Final Session

**17:30** – "Advances and adventures with compact NMR" – *Bernhard Blümich (RWTH, Germany)*