

Towards a Sustainable Bioeconomy – Resources, Utilization, Engineering and AgroEcosystems - Fall meeting Topic 7

28.10.2024, 16:00 → 30.10.2024, 12:30 Europe/Berlin

Lecture hall CL (Building 04.7, Room 201) (Jülich)

Beschreibung **Towards a Sustainable Bioeconomy – Resources, Utilization, Engineering and AgroEcosystems: Fall meeting Topic 7**

Welcome to our third on-site fall meeting "Towards a sustainable Bioeconomy", on 28.-30. October 2024 in Jülich.

The goals of our Fall Meeting are

- to present and discuss inspiring science from the three subtopics of Topic 7,
- to get to know the research and the colleagues of the different participating centers
- to stimulate Topic 7 internal exchange on research and products from Program-oriented Funding (PoF), and
- to develop collaborations within the Topic 7.

The program

To achieve the goals, entertaining and inspiring presentations, discussions and poster sessions are being prepared with a focus on scientific discussions and exchange. You find the program [HERE](#).

Who is invited?

We cordially invite scientists and PhD students working within Topic 7 to the onsite event at the Central Library in Forschungszentrum Jülich.

Registration

Registration will be open until September, 30 on this website.
Please register as soon as possible.

Hotel contingents

Accommodation needs to be booked individually. [HERE](#) you find a list with hotels nearby.

Interactive FZJ map: [HERE](#)

Bus shuttle for external guests:

28. October: Jülich → conference venue

- 04:20 p.m. Jülich Gut Alte Burg
- 04:35 p.m. bus stop Walramplatz (Hexenturm and Stadthotel)
- 04:40 p.m. Hotel Royal Jülich (Dürener Str. 37 a-c)

28. October: conference venue → hotels

- 09:00 p.m. Zentralbibliothek

29. October: Jülich → conference venue

- 07:40 a.m. Jülich Gut Alte Burg
- 07:55 a.m. bus stop Walramplatz (Hexenturm and Stadthotel)
- 08:00 a.m. Hotel Royal Jülich (Dürener Str. 37 a-c)

29. October: conference venue → hotels

- 10:00 p.m. Zentralbibliothek

30 October 2024: hotels → conference venue

- 08:10 a.m. Jülich Gut Alte Burg
- 08:25 a.m. bus stop Walramplatz (Hexenturm and Stadthotel)
- 08:30 a.m. Hotel Royal Jülich (Dürener Str. 37 a-c)



 Bus Train Taxi Plan....  List_of_hotels.pdf  map.pdf  Program.pdf

Anmeldung



Sie sind für diese Veranstaltung angemeldet.

MONTAG, 28. OKTOBER

Arrival and Registration ⌚ 1 h

📍 Foyer CL (Building 04.7, Room...

17:00 → 17:10 **Welcome to FZJ** ⌚ 10m

Sprecher: Prof. Peter Jansens (Forschungszentrum Jülich)

📍 Lecture hall CL (Building 04.0...

17:40 → 17:40 **Welcome and Introduction to Program and Topic 7** ⌚ 30m

Sprecher: Prof. Michael Bott (Forschungszentrum Jülich (IBG-1))

📍 Lecture hall CL (Building 04.0...

17:40 → 18:20 **Biomass Research at Helmholtz Energy - Contributions to Closing the Anthropogenic Carbon Cycle** ⌚ 40m

Plenary talk

Sprecher: Prof. Jörg Sauer (KIT)

📍 Lecture hall CL (Building 04.0...

18:20 → 20:30 **Poster session I with snacks and drinks** ⌚ 2h 10m

vegetarian and vegan food only

📍 Foyer CL (Building 04.7, Room...

19:00 → 20:00 **PowerPoint karaoke (optional)** ⌚ 1 h

PowerPoint karaoke is an entertaining game or improvisation exercise where participants must give a 2-5 minute presentation without knowing the content of the slides in advance. The slides are randomly selected. Each participant must prepare slides for such a presentation beforehand.

📍 Foyer CL (Building 04.7 Romm...

Dienstag, 29. Oktober

08:30 → 08:45 **Introduction of the day** ⌚ 15m

Sprecher: Prof. Michael Bott (Forschungszentrum Jülich (IBG-1))

📍 Lecture hall CL (Building 04.0...

08:45 → 09:45 **Session 1**

Sitzungsleiter: Prof. Michael Bott (Forschungszentrum Jülich (IBG-1))

📍 Lecture hall CL (Building 04.0...

08:45 | **Phage Biotechnology: Development of sustainable biocontrol strategies** ⌚ 20m

Sprecher: Prof. Julia Frunzke (Forschungszentrum Jülich (IBG-1))

09:05 | **Do we obtain valid data from climate change incubations using soils of today?** ⌚ 20m

Sprecher: Prof. Marie Muehe (UFZ)

09:25 | **Molecular bioinformatics: Transforming data for understanding and prediction** ⌚ 20m

Sprecher: Prof. Holger Gohlke (Forschungszentrum Jülich (IBG-4))

09:45 → 10:00 **Coffee Break** ⌚ 15m

vegetarian and vegan food only

📍 Foyer CL (Building 04.7, Room...

10:00 → 11:00 **Session 2**

Sitzungsleiter: Prof. Andreas Schmid (UFZ)

📍 Lecture hall CL (Building 04.0...

10:00 | **Cross-scale planning tools for the implementation of urban water infrastructures** ⌚ 20m

Sprecher: Dr. Jan Friesen (UFZ)

10:20 | **TUNING MULTI-ENZYME CATALYSED PROCESSES – modular set-up and integration with microbial and chemical transformations** ⌚ 20m

Sprecher: Prof. Dörthe Rother (Forschungszentrum Jülich (IBG-1))

10:40 | **Biophotovoltaics for white hydrogen production** ⌚ 20m

Sprecher: Dr. Bin Lai (UFZ)

11:00 → 12:20 **Session 3**

Sitzungsleiter: Prof. Jan Vanderborght (Forschungszentrum Jülich (IBG-3))

📍 Lecture hall CL (Building 04.0...

11:00 | **Holistic lignocellulose valorisation concepts - addressing feedstock recalcitrance and diversity** ⌚ 20m

Sprecher: Dr. Holger Klose (Forschungszentrum Jülich (IBG-2))

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| 11:20 | Mechanisms of nitrogen retention by carbon management in the post-harvest period ⌚ 20m Sprecher: Dr. Rüdiger Reichel (Forschungszentrum Jülich (IBG-3)) | |
| 11:40 | Unexpected Potentials in Marine Bioeconomy: Bio-inspired Lightweight Design ⌚ 20m Sprecher: Dr. Christian Hamm (AWI) | |
| 12:00 | Harnessing Cloud Computing for Advanced Metagenomic Analysis ⌚ 20m Sprecher: Prof. Alexander Sczyrba (Forschungszentrum Jülich (IBG-5)) | |
| 12:20 → 12:30 | Group photo ⌚ 10m In participating in the group photo, you are providing your consent for the publication of images taken of you during the event. | 📍 Foyer CL (Building 04.07, Roo... |
| 12:30 → 13:45 | Lunch Break ⌚ 1 h 15m vegetarian and vegan food only | 📍 Foyer CL (Building 04.7, Room... |
| 13:45 → 14:45 | Breakout Session Meeting point Foyer CL (Building 04.07, Room 200A) 15 minutes in advance. | |
| 13:45 | AI in Sustainable Life-Science Processes ⌚ 1 h Sprecher: Prof. Holger Gohlke (Forschungszentrum Jülich (IBG-4)) | 📍 Lecture hall CL (Building 04.0... |
| 13:45 | Research Connect: Connecting Scientists for Future Partnerships ⌚ 1 h Meeting point for people interested in scientific collaborations, including the SynCom information booth. | 📍 Building 04.07, Room 338) |
| 14:45 → 15:15 | Coffee break ⌚ 30m vegetarian and vegan food only | 📍 Foyer CL (Building 04.7, Room... |
| 15:15 → 17:00 | Internal Topic 7 Board Meeting ⌚ 1 h 45m Topic Board members only | 📍 Building 04.07, Room 338 |
| 15:15 → 17:00 | Lab/ Field tours Participation in the Lab tours is reserved for external participants. Meeting point Foyer CL (Building 04.07, Room 200A) 15 minutes in advance. | |
| 15:15 | AGRASIM ⌚ 45m AGRASIM is a new research facility of six terrestrial ecosystem mesocosms, which allow experimental simulation of the effect of present and future environmental conditions on, amongst others, agricultural plant performance, water and greenhouse gas fluxes, and carbon and nutrient dynamics in the soil-plant-atmosphere continuum. Sprecher: Prof. Nicolas Brüggemann (Forschungszentrum Jülich (IBG-3)) | 📍 Building 16.6, Entrance E1 (Jül... |
| 15:15 | AgriPV - Marginal Field Labs ⌚ 50m At the tour on our Agri PV site we will present different types of Agri-Horti-Photovoltaic systems, wherein the harvest of solar induced electricity and biomass from plants under solar panels can be performed. We will show how plant growth can be studied under the solar roofs with high-tech fully automated robotic systems. It helps us and the farmers of our region to learn, how to effectively combine farmland and regenerative energy production on the same piece of land. Sprecher: Dr. Matthias Meier (Forschungszentrum Jülich (IBG-2)), Dr. Onno Muller (Forschungszentrum Jülich (IBG-2)) | 📍 Foyer CL (Building 04.7, Room... |
| 15:15 | AutoBioTech - Automation of biotechnology ⌚ 45m The tour at IBG-1 will present the new technology platform AutoBioTech for automation and digitalization of microbial strain and bioprocess development. Protocols for automated cloning, transformation and identification of recombinant clones are established to speed up strain development and exploit the catalytic power of microbes for biotechnology and bioeconomy. Sprecher: Dr. Julia Tenhaef (Forschungszentrum Jülich (IBG-1)) | 📍 Building 15.21, Entrance E1 (J... |
| 15:15 | Phenotyping - tomography to high throughput ⌚ 30m In our tour we will present the plant MRI (Magnetic Resonance Imaging) installation, allowing to measure dynamics in structural and functional traits of plants. In particular, the method yields information on 3D root traits grown in natural field soils. Further we will visit the GrowScreen-Rhizo 3 installation which allows simultaneous phenotyping of root and shoot growth of crops grown in up to 900 soil-filled rhizotrons. Sprecher: Dr. Kerstin Nagel (Forschungszentrum Jülich (IBG-2)), Dr. Robert Koller (Forschungszentrum Jülich (IBG-2)) | 📍 Building 06.2, Entrance E1 (Jül... |

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| 16:00 | AutoBioTech - Automation of biotechnology ⌚ 45m 📍 Building 15.21, Entrance E1 (J... <p>The tour at IBG-1 will present the new technology platform AutoBioTech for automation and digitalization of microbial strain and bioprocess development. Protocols for automated cloning, transformation and identification of recombinant clones are established to speed up strain development and exploit the catalytic power of microbes for biotechnology and bioeconomy.</p> <p>Sprecher: Dr. Julia Tenhaef (Forschungszentrum Jülich (IBG-1))</p> |
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| 16:10 | AGRASIM ⌚ 45m 📍 Building 16.6, Entrance E1 (Jül... <p>AGRASIM is a new research facility of six terrestrial ecosystem mesocosms, which allow experimental simulation of the effect of present and future environmental conditions on, amongst others, agricultural plant performance, water and greenhouse gas fluxes, and carbon and nutrient dynamics in the soil-plant-atmosphere continuum.</p> <p>Sprecher: Adrian Haupenthal, Prof. Nicolas Brüggemann (Forschungszentrum Jülich (IBG-3))</p> |

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| 17:00 → 19:00 | Postersession II ⌚ 2h 📍 Foyer CL (Building 04.7, Room... |
| 19:00 → 21:30 | Conference dinner ⌚ 2h 30m 📍 Seecasino (Building 04.1) <p>vegetarian and vegan food only</p> |

MITTWOCH, 30. OKTOBER

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|---------------|--|
| 08:45 → 10:15 | PhD presentations 📍 Lecture hall CL (Building 04.0... <p>Sitzungsleiter: Prof. Ulrich Schurr (Forschungszentrum Jülich (IBG-2))</p> |
| 08:45 | Bio-upcycling of polyesters with engineered <i>Pseudomonas taiwanensis</i> ⌚ 15m <p>Sprecher: Leonie Op de Hipt (Forschungszentrum Jülich (IBG-1))</p> |
| 09:00 | Deep Learning based SIF retrieval from hyperspectral imagery ⌚ 15m <p>Sprecher: Jim Buffat (Forschungszentrum Jülich (IBG-2))</p> |
| 09:15 | In Silico Analysis of Plant- and Soil Microbes-Mediated Carbon Stabilization For Different Weather Scenarios ⌚ 15m <p>Sprecher: Mona Giraud (Forschungszentrum Jülich (IBG-3))</p> |
| 09:30 | Spatial Transcriptomics and Single-Cell RNA Sequencing Analysis of Barley Meristem to Elucidate Mechanisms of Crop Development ⌚ 15m <p>Sprecher: Frau Hannah Doerpholz (Forschungszentrum Jülich (IBG-4))</p> |
| 09:45 | Utilization of a regulatory protein to redirect electron flux into hydrogen in cyanobacteria ⌚ 15m <p>Sprecher: Marvin-Amadeus Itzenhäuser (UFZ)</p> |
| 10:00 | Design and validation of reactive urban percolation systems for efficient pollutant biotransformation ⌚ 15m <p>Sprecher: Xiangyu Ji (UFZ)</p> |
| 10:15 → 10:45 | Coffee break ⌚ 30m 📍 Foyer CL (Building 04.7, Room... <p>vegetarian and vegan food only</p> |

10:45

→ 11:30

PhD presentations

📍 Lecture hall CL (Building 04.0...

Sitzungsleiter: Prof. Harry Vereecken (Forschungszentrum Jülich (IBG-3))

10:45

Climate change impacts on metal accumulation in crops ⌚ 15m

Sprecher: Aleksandra Pienkowska (UFZ)

11:00

Sustainable diets for shrimp aquaculture utilizing local by-products ⌚ 15m

Sprecher: Enno Fricke (AWI)

11:15

"Basses Richesses" Disease Induces Heterogenic Allocation of Carbon in Growing Sugar Beet ⌚ 15m

Sprecher: Kwabena Agyei (Forschungszentrum Jülich (IBG-2))

11:30

→ 11:45

Closing remarks ⌚ 15m

📍 Lecture hall CL (Building 04.7, ...
