



MRM conference schedule

2nd international MRM conference - 7 & 8 September 2017 – Ghent, Belgium

Dear,

It is with great pleasure we invite you to the second international symposium on “Microbial resource management (MRM)” concerning the exiting innovations in the field of MRM. This edition of the conference focuses on the transition “from synthetic ecology to natural ecosystems” and is organized by the inter-university network (IAP) on MRM (www.mrm.ugent.be). It will take place at the 7th and 8th of September 2017 in ‘t Pand in Ghent (Belgium).

Microbial communities, in natural and engineered systems, function because of the complex interplay of their constituting biological entities. In the past few years many exiting new technologies have led to an increased understanding of microbial community composition. Now, especially with the rise of synthetic ecology approaches, microbial ecologists try to breach the gap between *in vitro* assemblies and natural ecosystems, which is at the core of the IAP MRM network.

Below you will find the program of the conference. As you can see there are no parallel sessions, since we want to encourage interaction between the different facets of the field.

Wednesday 6th of September 2017:

- For early arrivals, three parallel pre-conference workshops will be organized (separate registration is required). Afterwards, it is possible to join a social event in the city (tour of Ghent by night)
 - Session A: Self-branding: your experience and your skills as a researcher – Association Bernard Gregory
 - Session B: A practical guide to flow cytometric fingerprinting –Frederiek – Maarten Kerckhof and colleagues
 - Session C: An introduction to individual based modelling – Jan Baetens & Aisling Daly

Thursday 7th of September 2017:

- 9:00-12:00: arrival of participants and check-in in hotel, registration
- 9:30-12:00: session 1: The use of synthetic communities for theory development (chair: Benjamin Horemans)
 - **Keynote speaker: James I. Prosser (University of Aberdeen, UK): “From synthetic communities to the real world: questions and approaches”.**
 - **Talk 1: Marlies Christiaens (Ghent University - CMET): “Bioreactor operation shows haloplasticity of a synthetic nitrifying community, enabling urine treatment in space”.**



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- **Talk 2: Floriana Augelletti (Catholic University of Louvain):** *“Psychrophilic bacterial, synthetic consortia for biological treatment of artificial wastewater at low temperatures”.*
- **Talk 3: Marta Kinnunen (Technical University of Denmark):** *“Invasion of nitrite oxidizer dominated communities: interactions between propagule pressure and community composition”.*
- **Talk 4: Lynn Lemoine (Catholic University of Leuven):** *“Profiling microbial communities in anaerobic wastewater reactors via 16S rRNA gene sequencing: diversity and similarity in functionally identical bioreactors”.*
- 12.00-14.00h: lunch + poster session 1
- 14.00h-16.00h: session 2: Assembly versus analysis of synthetic ecosystems (Chair: Benoit Stenuit)
 - **Keynote speaker: Hauke Harms (Helmholtz-Centre for Environmental Research – UFZ):** *“Making microbial community services robust”.*
 - **Talk 1: Willem Stock (Ghent University – Protistology & Aquatic ecology):** *“The effect of host identity and environmental conditions on the selection of diatom-associated bacteria from a natural mixed inoculum”.*
 - **Talk 2: Daniela Azevedo (Technical university of Denmark):** *“Metagenomic analysis reveals intense partitioning and speciation of nitrogen oxide respiratory pathways in heterotrophic genomes of a partial nitrification/anammox microbial community”.*
 - **Talk 3: Chiara Ilgrande (Ghent University – CMET):** *“A match made for heaven: Assembling a microbial community fit for urine nitrification in Space”.*
- 16.00-16.30h: Coffee
- 16.30h – 18.30h: poster session 2
- 19.30h: conference (walking) dinner

Friday 8th of September 2017:

- 8.45h-10.45h: session 3: The Microbial Resource Management Toolbox (Chair: Mélanie Beraud)
 - **Keynote speaker: Søren Sørensen (University of Copenhagen, Section of Microbiology):** *“Synergistic interactions are ubiquitous in complex microbial communities, where they result in emergent community behaviors and special structured organization of the community”.*
 - **Talk 1: Peter Rubbens (Ghent University – KERMIT):** *“Identifying synthetic microbial communities using flow cytometry and machine learning”.*



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- **Talk 2: Paul Bodelier (NIOO-KNAW):** *“Volatolomics: volatile mediated interaction stimulates methanotrophic growth and activity.”*
- **Talk 3: Susann Müller (Helmholtz Centre for Environmental Research – UFZ):** *“Species-sorting and mass-transfer paradigms control managed natural metacommunities”.*
- 10.45h-11.00h: coffee
- 11.00h – 13.00h: session 4: Spatially explicit microscopic models (co-chairs: Bernard De Baets, Jan Baetens & Aisling Daly)
 - **Keynote speaker: Justin Travis (University of Aberdeen, Institute of Biological and Environmental sciences)** *“Spatially-explicit individual-based models: tools for thought, theory development and application”*
 - **Talk 1: Thomas Banitz (Helmholtz Centre for Environmental Research - UFZ, Department of Ecological Modelling)** *“Spatially Explicit Simulations Reveal Effects of Bacterial-Fungal Interactions and Disturbances on Microbial Ecosystem Functioning”.*
 - **Talk 2: Dana Ofiteru (Newcastle University, School of Chemical Engineering and Advanced Materials):** *“Competition between complete nitrification by a single organism and ammonia- and nitrite-oxidizing bacteria in biofilms”.*
 - **Talk 3: Ward Quaghebeur (Ghent University, CMET/KERMIT)** *“A more realistic model of microbial mobility and its effect on coexistence”.*
- 13.00h-14.00h: sandwich lunch and poster session (with poster awards)
- 14.00h-16.00h: session 5: Perspectives for microbial biotechnology (co-chairs Nico Boon & Frederiek-Maarten Kerckhof)
 - **Keynote speaker: Barth F. Smets (Technical University of Denmark, Department of Environmental Engineering):** *“The microbiome of potable water producing biofilters: taxonomic insights and anomalies, metabolic potentials, biotechnological opportunities?”*
 - **Talk 1: Jan Arends (Ghent University – CMET)** *“Microbial Resource Management with a pure culture; the example of Pseudomonas putida for production of fine chemicals on an anode”.*
 - **Talk 2: Joeri Coppens (Singapore Centre for Environmental Life Sciences Engineering):** *“Unravelling the microbial resource management toolset for mainstream shortcut nitrogen removal through nitrite shunt in tropical conditions”.*
 - **Talk 3: Lea Ellegaard – Jensen (Aarhus University, Department of Environmental Science, Section of Environmental Microbiology and Biotechnology):** *“Membrane residual water as a feed for bioaugmented waterworks sand filters”.*



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- 16.00h: reception

Social program

Pre-conference workshops

Wednesday, September 6th 2017

CMET, Faculty of Bioscience Engineering, Ghent University

Ghent by night

Wednesday, September 6th 2017

City of Ghent

Conference dinner

Thursday, September 7th 2017

't Pand, Gent

General information

Congress venue

The second international Microbial Resource Management conference will take place in Het Pand (Onderbergen 1, 9000, Gent) on September 7th & 8th 2017 in Ghent, Belgium.

Pre-conference workshops venue

The pre-conference workshop for early-stage researchers will take place in the facilities of CMET/KERMIT at the campus of Bio-Science Engineering, Coupure Links 653, 9000 Ghent, Belgium.

How to reach Ghent

By Air

Belgium's National Airport is situated in Brussels-Zaventem, only 50 minutes away from Ghent and has flights from over 70 international destinations, operated by more than 140 international and regional airline companies. The other Belgian airports, Ostend, Antwerp and Charleroi, serve several European destinations and have easy and direct connections to Ghent.

By Train

Ghent is situated on the important railway network London--Brussels--Cologne. Thanks to its central location in Flanders, and just 30 minutes away from Brussels South (Midi) Station, Ghent is very easily accessible by train from all Belgian and European cities. The high-speed trains, Eurostar and Thalys, take you to Ghent in less than 2 hours from Paris and in about 3 hours from London, Amsterdam and Cologne. There is a direct train from Zaventem (Brussels Airport) to Ghent (St.-Pieters).



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By Car

Ghent is located approximately 60 km west of Brussels. As Belgium has the densest highway network in Europe, Ghent can easily be reached by car from all over Europe. Ghent is accessible via the E40 motorway Brussels-Ostend.

From Brussels / Ghent / Antwerp / Amsterdam Motorway E 40

From Paris via Lille Motorway E 17

From Calais Motorway E 40

How to get to Het Pand

By Public transportation

From Gent Sint-Pieters railway station: take tram 1 (every 6 minutes – direction Evergem or Wondelgem) or tram 21 (every 20 minutes – direction Melle Leuw) and get off at the “Korenmarkt” or take tram 22 (direction Gentbrugge DC) and get off at the stop “Zonnestraat”. If coming with tram 1 or 21, cross Sint---Michiels bridge over the river Lys, and head for Sint---Michiels church. Turn left around Sint---Michiels church, onto a small square called Sint---Michiels square, and into a street called Onderbergen. The conference centre "t Pand" lies on your left (near car park P7 on the map of the historical centre of Gent). If coming from tram 22, cross the river Lys and take the second right into Onderbergen; at the end of the street you will find the conference centre.

By car

Entering Gent from the E40 or the E17, follow the parking route to P7 (Sint---Michiels car park –), which is only 50m away from 't Pand'. An alternative parking is P8 “Ramen”. From here it's about 5 minutes on foot to Het Pand. Be aware that Ghent has been made largely car-free and a lot of streets are not accessible by car.

Hotel suggestions

The MRM2 conference suggests 3 hotels you can book during you stay at our conference: [Hotel de Flandre](#), [Hotel Gravensteen](#) & [Hotel IBIS Cathedral](#). Rooms have been pre-registered for IUAP guests at those hotels and favorable rates can be obtained. All hotels are within walking distance of the congress venue.

A booking for for Hotel de Flandre or Hotel Gravensteen can be found on the following link:
<http://www.mrm.ugent.be/sites/default/files/uploads/MRM22017%4006092017.pdf>

Hotel IBIS Cathedral can be booked by sending an email to H0961-re@accor.com and mentioning the reservation code "MRM2 2017".

The prices for IBIS Cathedral are listed below:



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- Single room: €114 for one room, one night (including city-tax and breakfast)
- Double room: €132 for one room, one night (including city-tax and breakfast)

We look forward to welcoming you in Ghent,

The MRM IAP team

