

International Workshop on  
**Instabilities, Bifurcations and Migration in  
Pulsatile Flows**

Research Unit FOR 2688


23. - 25. September 2024

Carl von Ossietzky Universität Oldenburg

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## **Program**

### **Monday-23 September 2024**

#### **Time**

<b>8:30</b>	<b>Christian Wagner and Kerstin Avila</b> <i>Welcome speech</i>
<b>8:45</b>	<b>Emilie Dressaire</b> <i>Clogging of microfluidic arrays in pulsatile flows</i>
<b>9:35</b>	<b>Stavroula Balabani</b> <i>Harnessing haemodynamics to personalise treatment in complex vascular pathologies</i>
<b>10:25</b>	<b>Coffee Break</b>
<b>10:55</b>	<b>Stephan Gekle</b> <i>How to determine RBC property distributions from high-throughput experiments via computer simulations</i>
<b>11:15</b>	<b>Benedikt Johannig-Meiners</b> <i>Towards hemodynamics of a patient-specific thoracic aorta model in pulsatile flow</i>
<b>11:35</b>	<b>Lunch Break</b>
<b>13:00</b>	<b>Chaouqi Misbah</b> <i>Towards a universal law for blood flow</i>
<b>13:50</b>	<b>Selina Wrublewski and Felix Maurer</b> <i>In vivo flow of various cell populations</i>
<b>14:10</b>	<b>Markéta Kubànková</b> <i>Single-cell physical phenotyping of blood using deformability cytometry</i>
<b>15:00</b>	<b>Coffee break and discussions</b> <i>Possibility to visit the Wind tunnel</i>
<b>17:30</b>	<b>City Tour</b> <i>Meeting point at Schloßplatz, Eingang Landesmuseum</i>
<b>19:00</b>	<b>Conference Dinner</b> <i>Klinkerburg, Bahnhofsplatz (walking distance)</i>

## Tuesday-24 September 2024

### Time

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|--------|--|
| 8:45   | Melissa Brindise<br><i>Characterizing transition to turbulence in pulsatile pipe flow</i>  |
| 9:35   | Dominik Obrist<br><i>Turbulent flow behind aortic valve prostheses</i>   |
| 10:25  | Coffee Break   |
| 10:55  | Larissa Richter<br><i>Dynamics and instabilities of particle-laden pulsatile pipe flow</i>   |
| 11:15  | AG Hof<br><i>Hydrodynamic stability of pulsatile flow of complex fluids</i>  |
| 11:35  | Lunch Break  |
| 12:45  | Alexander Morozov<br><i>Elastic turbulence in parallel shear flows: Recent progress</i>  |
| 13:35  | Patrick Keuchel<br><i>Fluid structure interaction of a laminar pulsatile flow in elastic pipes</i>   |
| 13:55  | Samuel Castonguay and Brandon Hilliard<br><i>Cerebral aneurysm severity based on hemodynamic simulations and Quantifying Complex Pipe Wall Movements of a Compliant Vessel Subject to Pulsatile Flow</i> |
| 14:15  | Coffee break and discussions<br><i>Possibility to visit the Wind tunnel</i>  |
| 14:35  | Lisa Prah Wittberg<br><i>Pulsatile blood flow: from idealized to patient-specific geometries</i>   |
| 15:25  | Simon Mendez<br><i>Leveraging numerical simulation of red blood cell dynamics to improve the complete blood count</i>  |
| 16:30  | Bus to the port  |
| ~17:15 | Boat trip from Dangast, with onboard dinner<br><i>Watt'n Hafen</i>   |

Wednesday-25 September 2024

Time

8:45 Dmitry Fedosov  
*Transport of drug delivery particles in microvascular flow*

9:35 Annie Viallat  
*Individual red blood cells in microflows. From physiology to medical applications*

10:25 Coffee Break

10:55 Yazdan rashidi  
*Ordering of red blood cells in viscoelastic confined flows*

11:15 Othmane Aouane  
*particle transport in complex geometries*

11:35 Ending Words  
*~5 min.*

## **Important Locations:**

### **Meeting Venue:**

#### **ForWind**

#### **Center for Wind energy research**

Universities of Bremen, Hannover  
and Oldenburg

Oldenburg Campus Wecholy

Küpkersweg 70 (Building W33)

26129 Oldenburg

<https://maps.app.goo.gl/DyDMLDv6DF9xzN8X6>



The whole ground floor is reserved for the workshop. A small seminar room in the third floor (3-325) is reserved as well for quiet discussions / preparations or video calls. **Food and catering** will be provided by the Institute or taken care of by the organizers.

### **Accommodation** (FOR members and guest speakers):

Altera Hotel

Herbartgang 23, 26122 Oldenburg



[oldenburg@altera-hotels.de](mailto:oldenburg@altera-hotels.de)



+49 441 219080

Check-in from 3pm, check-out until 11am (except on Sunday, until 12 midday).

### **City Tour of Oldenburg** (Monday)

Address: Entrance 'Landesmuseum', Schlossplatz, 26122 Oldenburg

Start of Tour: 5:30 pm

Duration: ~ 60 minutes

### **Conference Dinner at Klinkerburg** (Monday)

Address: Bahnhofplatz, 26122 Oldenburg

Start of Dinner: 7 pm

### **Boat Tour from 'Watt'n Hafen' Dangast** (Tuesday)

Address: Harbor Dangast, 26316 Varel

Bus to the Boat tour leaves at 4:30 pm from ForWind

## **Reaching the Venue ForWind (general guidelines)**

### **Travelling by public transport:**

You can travel to Oldenburg by train using DB and NordWestBahn. The university Campus Wechloy can be reached from the ZOB Oldenburg (central bus station) by bus line 306 (University). To get to building W33 - WindLab, take the bus to the final stop 'Carl-von-Ossietzky-Straße' and follow the footpath marked blue on the map (through the main building).

Alternatively, the Wechloy campus can be reached by taking the Regio S-Bahn (regional train line, NordWestBahn) to Wechloy station. From there, follow Carl-von-Ossietzky Straße to the entrance of the main university building. From here, follow the footpath marked in blue on the map through the main building to the WindLab.



### **Travelling by car:**

Coming from the Oldenburg-Ost Autobahn junction, take the A28 towards Emden/Leer. At the Oldenburg-West Autobahn junction, stay on the A28. Leave the Autobahn at the exit 10 'Wechloy' and turn left at the traffic lights onto the Ammerländer Heerstraße in the direction of the city centre / university (Stadtmitte / Universität). At the first set of traffic lights (after approx. 300 metres) turn right into Kükpersweg. The entrance to the car park is on the right-hand side approx. 100 metres after the railway crossing.

Coming from the A28 motorway heading south, take exit 10 'Wechloy' and turn right at the traffic lights onto Ammerländer Heerstraße in the direction of the city centre / university (Stadtmitte / Universität). At the first set of traffic lights (after approx. 300 metres) turn right into Kükpersweg. The entrance to the car park is on the right-hand side approx. 100 metres after the railway crossing.



## **Suggested Transport Instructions**

### Schedule Monday 23.09.2024:

From Hotel Altera to the ForWind (leave 7:45 am, ~ 30 minutes)

- Walk from Hotel to Bus Stop 'Julius-Mosen-Platz' (~5 minute walk)
- Bus Line 306 (Oldb Uni / Campus Wechloy) à 'Campus Wechloy' (~10 minute drive, Bus drives every 15 minutes)
- Walk from Bus Stop to ForWind (Küpkersweg 70, ~15 minute walk)

From ForWind to the City Tour (leave 4:35 pm, ~ 42 minutes):

- Walk from ForWind to Bus Stop 'Campus Wechloy' (~15 minute walk)
- Bus Line 306 (Oldb ZOB) à 'Lappan' (~12 minute drives, Bus drives every 15 minutes)
- Walk from Bus Stop to Schlossplatz (Eingang Landesmuseum, ~15 minute walk)

From City Tour to Conference Dinner (leave 6:30 pm, ~18 minutes)

- Walk from Schlossplatz to Klinkerburg (Bahnhofsplatz, ~18 minute walk)

From Conference Dinner to Hotel Altera (~10 minutes via bus or ~ 15 minute walk)

- From Bus Stop 'Oldenburg, Hbf Süd' (with Lines: 306, 308, 309, 310,...) to 'Oldb, Lappan' (1 stop, 1 minutes) – walk from Lappan to Hotel

### Schedule Tuesday 24.09.2024 & Wednesday 25.09.2024:

From Hotel Altera to the ForWind (leave 8:00 am, ~ 30 minutes)

- Walk from Hotel to Bus Stop 'Julius-Mosen-Platz' (~5 minute walk)
- Bus Line 306 (Oldb Uni / Campus Wechloy) à 'Campus Wechloy' (~10 minute drive, Bus drives every 15 minutes)
- Walk from Bus Stop to ForWind (Küpkersweg 70, ~15 minute walk)

From ForWind to the Hotel Altera (~ 30 minutes)

- Walk from ForWind to Bus Stop 'Campus Wechloy' (~15 minute walk)
- Bus Line 306 / 310 (Oldb ZOB) à 'Julius-Mosen-Platz' (~10 minute drive, Bus drives every 30 minutes after 6pm) - Buses leaves at 8:25 pm; 8:52 pm; 9:22 pm
- Walk from Bus Stop to Hotel Altera (Herbartgang 23, ~5 minute walk)