

**Physical Limnology 2019**  
Workshop – Block Course

Helmholtz Centre for Environmental Research – UFZ  
In Brueckstrasse 3a, 39114 Magdeburg, Germany, seminar room

Schedule of lectures: 25<sup>th</sup> Feb to 1<sup>st</sup> March 2019

Start time	Mon	Tue	Wed	Thu	Fri
9:00-9:30	--	Ex-B1	Ex-B4	Ex-B5	Ex-L2
<b>9:30- 11:00</b>	<b>B1+ex</b>	<b>B3+ex</b>	<b>B5+ex</b>	<b>L2+ex</b>	<b>L4</b>
<b>11:15-12:45</b>	<b>B2+ex</b>	<b>R1</b>	<b>B6</b>	<b>B7</b>	<b>B8</b>
14:15-14:45	Ex-B0	Ex-B2	Ex-B	Ex-L1	--
<b>15:00-16:30</b>	<b>S1+ex</b>	<b>B4+ex</b>	<b>L1+ex</b>	<b>L3</b>	--

B Dr. Bertram Boehrer (Helmholtz Centre for Environ. Res. – UFZ, Magdeburg)  
L Prof. Andreas Lorke (Univ. Koblenz-Landau, Landau)  
S Dr. Martin Schultze (Helmholtz Centre for Environ. Res. – UFZ, Magdeburg)  
R Dr. Karsten Rinke (Helmholtz Centre for Environ. Res. – UFZ, Magdeburg)

ex brief exercise sheet handed out.  
Ex exercise group

**B1 - Stratification and circulation of lakes, Navier Stokes – eq.**  
**B2 – solutes, solubility, electrical conductivity**  
**B3 – density, stability and mixing, deep water renewal**  
**B4 – surface waves, seiche, interfacial waves**  
**B5 – internal waves**  
**B6 – properties of internal waves**  
**B7 – Experiment on properties of internal waves**  
**B8 - Permanent stratification, meromixis, climate sensitivity**  
**L1 - Turbulence I: Introduction to turbulence**  
**L2 - Turbulence II: Spectral characteristics and measurements**  
**L3 - Turbulence III: Momentum and mass transport in turbulent boundary layers**  
**L4 - Turbulence IV: Living in turbulence: biological – physical interactions**  
**S1 - precipitation and redissolution of chemicals in lacustrine waters**  
**R1 – seasonal occurrence of organisms in lakes**

Further Information:  
<http://www.ufz.de/index.php?de=18470>  
Bertram.Boehrer@ufz.de

**This block course is sponsored by**



Sea and Sun Technology, Trappenkamp

<http://www.sea-sun-tech.com/technology.html>



Or check the location on [stadtplan.magdeburg.de](http://stadtplan.magdeburg.de)

#### Travel:

Airports Berlin-Tegel, Berlin-Schönefeld, Hannover, Leipzig-Halle are all about 100 to 130 km away from Magdeburg. Magdeburg can be reached by train, check e.g. [www.bahn.de](http://www.bahn.de). Within Magdeburg: leave tram at stop Heumarkt.

#### Accommodation:

Please be aware that the main transit under the train line is under construction. Our recommendation is **stay east of the train line!** Probably most of the participants have their preference, how they organize their accommodation. If you need to look after money, a cheap choice is the **Youth Hostel**. They also offer single rooms and it is centrally located. Slightly more expensive: [gaestehaus-md.de/](http://gaestehaus-md.de/), I have heard good comments on **MOTEL1**, but there is the range up to expensive hotels. Also the **UFZ** offers beds at 24 EUR per night, but you have to share a room, if more than 3 opt for this; no facilities around here (let me know asap, if you opt for UFZ).

#### Material:

You may download preliminary versions of the presentation slides from the UFZ cloud; There will be information in near future.

Anybody who wants to report about his/her work may prepare either up to 3 slides for projection or a print-out that we can stick to the wall. We will find 3 minutes between the lectures for everybody.

#### Availability:

Please be aware that I will not be on email from 18<sup>th</sup> till 23<sup>rd</sup> Feb. for holiday reasons. Ask all questions before please. If anything urgent comes up during this time, you may write to [Muhammed.Shikhani@ufz.de](mailto:Muhammed.Shikhani@ufz.de)

Have a safe trip. Looking forward to seeing you here  
For all lecturers - Bertram Boehrer