

Accommodation

For the nights from 8 to 10 Nov. 2022, a room contingent is reserved. Reservations are possible up to and including 15 Sept. 2022 under the keyword "Cavitation Colloquium 2022" at the following hotels:

- **Mercure Hotel Duisburg City**
Landfermannstr. 20
47051 Duisburg
Tel. 0203 3000 3 666
<https://all.accor.com/hotel/0743/index.en.shtml>
Price for a single room: € 79.99 incl. breakfast
- **Intercity Hotel Duisburg**
Mercatorstraße 57
47051 Duisburg
Tel. 0203 60716 0
www.intercityhotel.com/en/hotels/all-hotels/germany/duisburg/intercityhotel-duisburg
Price for a single room: € 79.50 incl. breakfast

Registration

Please register informally via email: (claudia.odonoghue@uni-due.de) stating the institution, the number of participants, and the subject "Cavitation Colloquium 2022" by 1 Oct. 2022. For later registrations, it may no longer be possible to participate at the dinner.

Dates

7 July 2022	Announcement and "Call for Presentations"
1 Sept. 2022	Submission of abstracts
15 Sept. 2022	Acceptance of abstracts and publication of the program
1 Oct. 2022	Registration of presenters and participants
1 Nov 2022	Submission of presentations
9 and 10 Nov. 2022	Colloquium

Registration Fees

From participants, we request a fee of 150 € as a contribution to the costs listed below. For doctoral students, the fee is reduced to 100 €.

- Colloquium incl. refreshments during breaks
- Lunch snack on 9 and 10 Nov. 2022
- Dinner on 9 Nov. 2022

After registration, participants will receive an invoice requesting the payment of fees by 8 Oct. 2022 to the University Duisburg-Essen.

Cash payment at the venue will not be possible.

Venue

Duisburg (address to be specified)

UNIVERSITÄT
DUISBURG
ESSEN

Offen im Denken

4th Colloquium on Cavitation and Cavitation Erosion

9 and 10 November 2022

Call for Presentations

Prof. Dr.-Ing. Bettar el Moctar
Dr.-Ing. Udo Lantermann
Dr.-Ing. Andreas Peters
Schip und Offshore Technology
University Duisburg-Essen

Prof. Dr.-Ing. Romuald Skoda
Hydraulische Strömungsmaschinen (HSM)
(Hydraulic Turbo Machinery)
Ruhr-University Bochum

Prof. Dr.-Ing. Michael Pohl
Werkstoffprüfung (WP)
(Material Testing)
Ruhr-University Bochum

Ruhr-University Bochum

Fakultät Maschinenbau
Lehrstuhl und Kompetenzzentrum für hydraulische
Strömungsmaschinen (HSM und KHS)
Prof. Dr.-Ing. Romuald Skoda
Gebäude IC 3/97; Universitätsstraße 150
44801 Bochum
Fon +49 (0)234 32-28801
Fax +49 (0)234 32-14799
hydro@rub.de

Ruhr-University Bochum

Fakultät Maschinenbau
Institut für Werkstoffe
Lehrstuhl für Werkstoffprüfung (WP)
Prof. Dr.-Ing. Michael Pohl
Gebäude IC 03/223; Universitätsstraße 150;
44801 Bochum
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Fax +49 (0)234 32-14409
pohl@wp.rub.de

University Duisburg-Essen

Fakultät Ingenieurwissenschaften
Institut für Schiffstechnik und Meerestechnik
Prof. Dr.-Ing. Bettar el Moctar
Raum BK 118; Bismarckstraße 69
47057 Duisburg
Fon +49 (0)203 379-2539
Fax +49 (0)203 379-2779
ould.el-moctar@uni-due.de

Contact

If you have any questions, please contact Ms. Claudia O'Donoghue
(claudia.odonoghue@uni-due.de)



Colloquium on Cavitation and Cavitation Erosion

Purpose

Cavitation has been a field of research for many decades in various scientific disciplines, e.g., engineering, physics, chemistry and medicine. For the fourth time, the University Duisburg-Essen and the Ruhr-University Bochum are jointly organizing a colloquium on cavitation and cavitation erosion to address all possible disciplines associated with cavitation and cavitation erosion. Fluid dynamics as well as material related questions are to be addressed.

The colloquium intends to promote the exchange of knowledge between research institutions and industry.

Topics and Disciplines

- Engineering, physics, medicine, chemistry
- Fluid dynamics and material science
- Basic and applied research
- Theory, experiments, and numerical simulation
- Hydrodynamic and acoustic cavitation
- Cavitation on hydrofoils
- Turbo machinery
- Cleaning technology
- ...

Target Group

The colloquium addresses researchers and representatives from academia as well as from industry.

Call for Presentations

Please send an abstract via email to Claudia O'Donoghue by 1 Sept. 2022 (claudia.odonoghue@uni-due.de):

- Title
- Authors
- Summary of the presentation (2 DIN A4 pages max.)

Language

Conference languages are English or German.

Draft Program

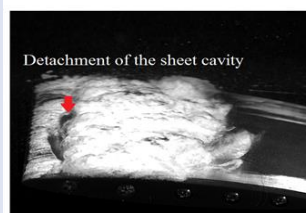
Wednesday, 9 Nov. 2022

9 am	Reception and welcome coffee
9:30 am	Presentations
1 pm	Lunch break
2 to 6 pm	Presentations
from 7 pm	Joint dinner

Thursday, 10 Nov. 2022

9 am	Presentations
1 to 2 pm	Lunch break and joint closure

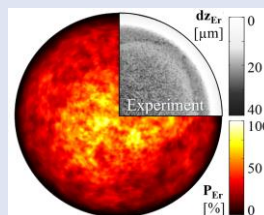
Cavitation on an hydrofoil



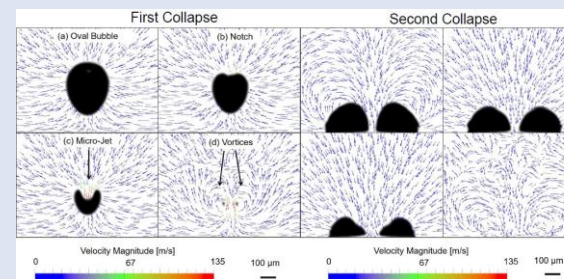
Simulated cavitation bubble field under a sonotrode



Comparison between simulated and measured material removal from an erosion-sensitive region of a sonotrode sample



Numerically computed bubble collapse at a wall



Simulated cavitation erosion on a ship's propeller

