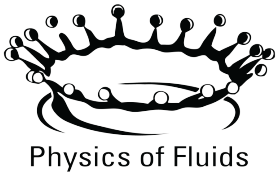
Multiphase wall-bounded turbulence

Dennis Bakhuis

Thesis committee members:

Prof. dr. ir. J. W. M. Hilgenkamp (chairman)	UT, Enschede
Prof. dr. C. Sun (supervisor)	Tsinghua, Beijing; UT, Enschede
Prof. dr. ret. nat. D. Lohse (supervisor)	UT, Enschede
Asst. prof. dr. S. G. Huisman (co-supervisor)	UT, Enschede
Prof. dr. ir. T. J. C. van Terwisga	TU, Delft
Prof. dr. ir. A. W. Vreman	TU/e, Eindhoven
Prof. dr. J. G. M. Kuerten	TU/e, Eindhoven; UT, Enschede
Prof. dr. W. L. Vos	UT, Enschede



UNIVERSITY
OF TWENTE.

The work in this thesis was carried out at the Physics of Fluids group of the Faculty of Science and Technology of the University of Twente. This thesis was financially supported by the Netherlands Organisation for Scientific Research (NWO) under VIDI grant No. 13477.

Dutch title:
Meerfasen wandbegrensde turbulentie

Publisher:
Dennis Bakhuis, Physics of Fluids, University of Twente,
P.O. Box 217, 7500 AE Enschede, The Netherlands

Cover design:
A render of the Taylor-Couette setup with the inclusions and roughness used in this thesis, created with the Blender 3D creation suite. The roughness is based on the confocal scan. The height of the roughness and size of the inclusions are exaggerated for visualization.

ISBN: 978-90-365-4679-9 DOI: 10.3990/1.9789036546799

Multiphase wall-bounded turbulence

DISSERTATION

to obtain
the degree of doctor at the University of Twente,
on the authority of the rector magnificus,
Prof. dr. T. T. M. Palstra,
on account of the decision of the graduation committee,
to be publicly defended
on Thursday the 31st of January 2019 at 16:45

by

Dennis Bakhuis
Born on the 25th of July 1982
in Celle, Germany

This dissertation has been approved by the supervisors:

Prof. dr. Chao. Sun
Prof. dr. ret. nat. Detlef Lohse

and the co-supervisor:

Asst. prof. dr. Sander G. Huisman