# Vatsal Sanjay — Ph.D.

Physics of Fluids Dept., Univ. Twente – Postdoc (2022–2025)

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Date of birth: Feb. 5, 1996 Updated: May 29, 2025

#### **Education**

Physics of Fluids Dept.

Univ. Twente

Ph.D. (Appl. Phys.), Graduated cum laude (with distinction)

2018-2022

Supervisor: Prof. Detlef Lohse.

**Thesis:** *Viscous free-surface flows* (OA) 10.3990/1.9789036554077.

Two-Phase Flow & Instability Lab

IIT Roorkee

B.Tech (Mech.) & M.Tech (Thermal Eng.), Graduated with distinction (CGPA: 9.1/10)

2013-2018

Supervisor: Prof. Arup Kumar Das,

Thesis: Understanding of mutual interactions between liquid jets (OA) 10.13140/RG.2.2.22294.04166.

#### **Professional Experience**

Physics of Fluids Dept.

Univ. Twente

Postdoctoral Researcher, Leading Computational Multiphase Physics (CoMPhy) Lab

2022-2025

Working on non-Newtonian free-surface flows and soft matter singularities.

Fluid Mechanics & Acoustics Lab (UMR 5509)

Univ. Claude Bernard Lyon 1, France

Research Intern

May–July, 2016

Worked on Landau-Levich dip coating.

## Major Awards & Achievements

2025: Ammodo Science Fellowship for mycofluidic transport.

2024: J. Fluid Mech. Outstanding Reviewer (top 1%), KIVI Hoogendoorn Award (best PhD thesis in

NL), Young Scientist (73rd Lindau Nobel Laureate Meeting).

**2022**: **Doctor cum laude** (with distinction), top 5% of PhD graduates.

2018: Department Gold Medal, IIT Roorkee.

## **Service to the Community**

Organized: Physics of Fluids weekly seminar (2022–2025), 2 workshops/symposia.

Referee: J. Fluid Mech. (75), Phys. Rev. (18), PNAS (2), among others.

## **Funding & Outreach**

Funding: Ammodo Fellowship (€170000), 10M CPU hours on Snellius HPC.

Outreach: Social media (@poftwente), APS-DFD mentor, Skype a Scientist.

## **Supervision & Teaching**

PhD: 4 students: A. Bhargava, A. Dixit, J. Talukdar, S. Jana (2023–2025).

Master/BSc: 15 theses supervised (2019–2025).

**Teaching:** Co-lecturer, Advanced Fluid Mechanics, Univ. Twente (2018–2025).

#### **Peer-Reviewed Publications**

**Selected publications** (15 total, 600+ citations):

- o V. Sanjay & D. Lohse, Unifying theory of scaling in drop impact, *Phys. Rev. Lett.*, in press (2025).
- B. Zhang, V. Sanjay, et al., Impact forces of water drops, *Phys. Rev. Lett.* 129, 104501 (2022); Editor's Suggestion, Highly Cited.
- o **V. Sanjay**, S. Lakshman, et al., Drop impact on viscous liquid films, *J. Fluid Mech.* 958, A25 (2023).
- o **V. Sanjay**, D. Lohse, & M. Jalaal, Bursting bubble in a viscoplastic medium, *J. Fluid Mech.* 922, A22 (2021).

Full list: Google Scholar.

#### **Selected Talks**

**Invited**: 16 talks: DAMTP Cambridge, Univ. Warwick, IIT Bombay, others. **Contributed**: 32 talks: APS-DFD (5x), EFMC, EFDC, Liquid Matter Conf.

**Metrics:** h-index: 9 (GS), 7 (WoS) — Citations: 600+ — ORCID: 0000-0002-4293-6099