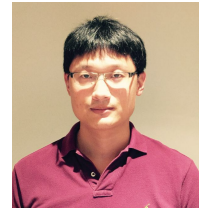


# Jiaming Zhang

## Curriculum Vitae

Physics of Fluids group (POF)  
University of Twente  
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Advisor: Prof. Alvaro Marin, Claas Visser, and Detlef Lohse



### Personal

Gender: Male | Date of Birth: 1984.03 | Birthplace: Shenyang, Liaoning, China.

### Employment

- 2017.09 - present Researcher. Physics of Fluids group, **University of Twente (UT)**, supervised by Prof. **Alvaro Marin, Claas Visser and Detlef Lohse**.  
Particle/bacteria dynamics in shrinkage droplets  
Development of next generation 3D-printing platform
- 2016.09 - 2017.09 Research Associate. Mechanics and Engineering Science, **Peking University (PKU)**, supervised by Prof. **Huiling Duan**.  
Develop a high-speed imaging fluid system and a novel droplet 3D-printing platform.

### Education

- 2010.09 - 2016.09 Ph.D. Mechanical Engineering, **King Abdullah University of Science and Technology (KAUST)**, supervised by Prof. **Sigurdur Thoroddsen**.  
Dissertation: Generation of emulsion droplets and micro-bubbles in microfluidic devices.
- 2007.09 - 2010.07 M.S. Energy Engineering, **University of Science and Technology of China (USTC)**.
- 2003.09 - 2007.07 B.S. Energy Engineering, **Harbin Institute of Technology (HIT)**.

### Professional Experience & Projects

1. European Research Council (ERC) starting grant (Physics of nanoparticle assembly, 1.5 million euro, major participant).
2. Saudi Aramco funding grant (Drop Coalescence in oil, 1 million USD, major participant).
3. Develop a new research direction: 3D-printed droplet-microfluidics & Develop a novel multi-material printing technique: Droplet-microfluidic 3D-printing
4. 3D-printing: Proficient in various printers such as Makerbot, Leapfrog, Form-1/2/3, Miicraft-1/2, Titian-1/2, and Objet 350 Connex 3 printers.
5. Microfluidics: Proficient in droplet/bubble microfluidics.
6. Microfabrication: Proficient in various chip fabrication such as silicon/PDMS/plastic/3D-printed chips.
7. High-speed imaging: Proficient in Photron, Phantom, PCO, and Kirana high-speed cameras.
8. Industry design: Proficient in Solidworks (3D design), CorelDraw and Adobe Illustrator (2D design), and L-edit (MEMS design).
9. Numerics: Proficient in Fortran, Python, Matlab and Comsol.

### Honors & Awards

- 2019 - 2021 (Nanjing) Overseas High-level Talents Innovation and Entrepreneurship (500,000 RMB grant).
2018. 08 Outstanding reviewer on *International Journal of Multiphase Flow*.  
A top journal in the multiphase flow field.
- 2010 - 2016 KAUST Fellowship for excellent Ph.D students.
- 2010 - 2011 KAUST Provost Awards for outstanding Ph.D student.

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## Patents

1. Zhang JM, Duan H, Ji Q. Microfluidic chip and droplet generation device applying same. *CN106807463B*, granted.
2. Zhang JM, Duan H, Zhou Z and Li X. A microfluidic chip based on 3D-printing and emulsion generation device. *CN106975411B*, granted.
3. Zhang JM, Duan H, Ji Q and Li X. A modular fixture for microfluidic chips. *CN107321403B*, granted.
4. Ji Q, Duan H, Zhang JM and Liu Y. A novel microfluidic valve. *CN208107215U*, granted.
5. Ji Q, Liu Y, Duan H and Zhang JM. A novel microfluidic pump. *CN207989278U*, granted.
6. Duan H, Zhang JM, Li X, Huang Z and Lv P. 3D-printing equipment. *CN208497678U*, granted.

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## Conference

1. Droplets 2019 UK. Poster. 2019.
2. Burgers Symposium, the Netherlands. Speaker. 2018.
3. The 68th Annual Meeting of the APS Division of Fluid Dynamics. Speaker. 2015.
4. The 19th International Conference on Miniaturized Systems for Chemistry and Life Sciences ( $\mu$ Tas 2015). Poster. 2015.
5. The 67th Annual Meeting of the APS Division of Fluid Dynamics. Speaker. 2014.
6. The 66th Annual Meeting of the APS Division of Fluid Dynamics. Speaker. 2013.
7. European Molecular biology Laboratory Microfluidics Conference (EMBL). Poster. 2012.
8. The 4th International Bioinformatics and Biomedical Engineering Conference (iCBBE). Speaker. 2010.

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## Language

Chinese, native speaker | English, fluent | Dutch, A1.

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## References

1. Associate Prof. **Alvaro Marin**. Physics of Fluids group, UT.  
Website: <https://people.utwente.nl/a.marin>  
Email: [alvarogum@gmail.com](mailto:alvarogum@gmail.com)
2. Prof. **Sigurdur Thoroddsen**. Mechanical Engineering, KAUST.  
Website: <https://highspeedfluids.kaust.edu.sa/Pages/Home.aspx>  
Email: [sigurdur.thoroddsen@kaust.edu.sa](mailto:sigurdur.thoroddsen@kaust.edu.sa)
3. Prof. **Huiling Duan**. College of Engineering, PKU.  
Website: <http://www2.coe.pku.edu.cn/faculty/duanhuilong/web/home.html>  
Email: [hlduan@pku.edu.cn](mailto:hlduan@pku.edu.cn)
4. Assistant Prof. **Claas Visser**. Faculty of Mechanical Engineering, UT.  
Website: <http://people.utwente.nl/c.visser>  
Email: [c.visser@utwente.nl](mailto:c.visser@utwente.nl)
5. Prof. **Detlef Lohse**. Physics of Fluids group, UT.  
Website: <https://people.utwente.nl/d.lohse>  
Email: [d.lohse@utwente.nl](mailto:d.lohse@utwente.nl)

## Publications

1. JM Zhang, EQ Li & ST Thoroddsen. (2020)  
**Fine radial jetting during the impact of compound drops**  
*Journal of Fluid Mechanics*, 883, A46. Top journal in Fluid mechanics.
2. JM Zhang, Y Chen, Lohse D & A Marin. (2020)  
**Shrinkage of microdroplets in confined and sparingly miscible media**  
*Journal of Fluid Mechanics*, under review. Top journal in Fluid mechanics.
3. JM Zhang, Q Ji & HL Duan. (2019)  
**Three-dimensional printed devices in droplet microfluidics**  
*Micromachines* 10(11), 754 Invited review.
4. X Li, JM Zhang\*, X Yi, Z Huang, P Lv and H Duan. (2018) \* *Corresponding author.*  
**Multimaterial microfluidic 3D printing of textured composites with liquid inclusions**  
*Advanced Science* 2018, 1800730. Back cover. IF = 15.8. Top journal in material science.
5. Z Zhou, T Kong, H Mkaouar, KN Salama & JM Zhang\*. (2018) \* *Corresponding author.*  
**A hybrid modular microfluidic device for emulsion generation**  
*Sensors and Actuators A* 280 422-428.
6. Q Ji, JM Zhang†, Y Liu, X Li, P Lv, D Jin & H Duan. (2018) † *Co-first author.*  
**A Modular Microfluidic Device via Multimaterial 3D Printing for Emulsion Generation**  
*Scientific reports* 8 (1), 4791.
7. JM Zhang, Q Ji, Y Liu & H Duan. (2018)  
**An Integrated Micro-Millifluidic Processing System**  
*Lab on a Chip*, 18, 3393-3404. Back cover. IF = 6.9. Top journal in microfluidics.
8. JM Zhang, AA Aguirre-Pablo, EQ Li, U Buttner & ST Thoroddsen. (2016)  
**Droplet generation in cross-flow for cost-effective 3D-printed "Plug-and-Play" microfluidic devices**  
*RSC Advances* 6 (84), 81120-81129.
9. JM Zhang, EQ Li, AA Aguirre-Pablo & ST Thoroddsen. (2016)  
**A simple and low-cost fully 3D-printed non-planar emulsion generator**  
*RSC Advances* 6 (4), 2793-2799.
10. JM Zhang, EQ Li & ST Thoroddsen. (2014)  
**A co-flow-focusing monodisperse microbubble generator**  
*Journal of Micromechanics and Microengineering* 24 (3), 035008.
11. S Lone, JM Zhang, IU Vakarelski, EQ Li & ST Thoroddsen. (2017)  
**Evaporative lithography in open microfluidic channel networks**  
*Langmuir* 33 (11), 2861-2871.
12. EQ Li, JM Zhang & ST Thoroddsen (2014).  
**Simple and inexpensive microfluidic devices for the generation of monodisperse multiple emulsion**  
*Journal of Micromechanics and Microengineering* 24 (1), 015019.
13. Z Zhou, N Han, Z Liu, Z Song, P Wu, J Shao, JM Zhang & J Yin. (2016)  
**The antibacterial activity of syringopicroside, its metabolites and natural analogues from *Syringae Folium***  
*Fitoterapia* 110, 20-25.