

PERSONAL INFORMATION

Pier Luca Maffettone



Enterprise	University	EPR
<input type="checkbox"/> Management Level	<input checked="" type="checkbox"/> Full professor	<input type="checkbox"/> Research Director and 1st level Technologist / First Researcher and 2nd level Technologist / Principal Investigator
<input type="checkbox"/> Mid-Management Level	<input type="checkbox"/> Associate Professor	<input type="checkbox"/> Level III Researcher and Technologist
<input type="checkbox"/> Employee / worker level	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

Leader of a research group on Soft Matter Engineering working on design, modeling and simulation of microfluidic applications for lab-on-chip, and soft matter in flow. His work experience on the themes of CN2 is supported by research papers in top archival journals on microfluidics, and ongoing research funding for development of technological platforms for drug delivery and lab-on-chip diagnostic.

WORK EXPERIENCE

Member of the Consiglio di Amministrazione (Nov 2020 -)

Università degli Studi di Napoli Federico II

Director (2013 - 2018)

Dipartimento di Ingegneria Chimica, dei Materiali e della Produzione Industriale

Università degli Studi di Napoli Federico II

Full Professor - Chemical Engineering (11/2005 -)

Università degli Studi di Napoli Federico II

Member at Large of the Executive Committee (4/2013-4/2021)

The European Society of Rheology

Associate Professor (11/1998-11/2005)

Politecnico di Torino

Visiting Scientist (1/1995-3/1995)

Stanford University

Assistant Professor (12/1994-10/1998)

Università degli Studi di Napoli Federico II

Visiting Researcher (8/1990-7/1991)

University of Delaware

EDUCATION AND TRAINING

Replace with dates (from - to)

PhD Chemical Engineering (1990-1993)

Università degli Studi di Napoli Federico II

WORK ACTIVITIES

Awards

Fellow of The Society of Rheology (class 2018)

Editorial activity

Member of the Editorial Board of: Journal non-Newtonian Fluid Mechanics (2017 -)

Member of the Editorial Board of: Rheologica Acta (2015 -)

Invited presentations

The 30th Anniversary Symposium of the Korean Society Rheology 22-23/5/2019 Seoul
Gordon Research Conferences, Physics and Chemistry of Microfluidics June 4th – June 9th 2017.

Plenary Lecturer - European Polymer Congress 2005: Moscow EPF 2005 : Moscow, Russia : June 27 - July 1

Grants ASI Salute nello spazio 2021-2025, 900k€
PRIN 2017 MORphological biomarkers For Early diagnosis in Oncology 2018-2022, 221k€
PON-MIUR Micro-mechanical and robotic tools for the diagnosis and therapy of prostate cancer 2018-2021, 205k€
H2020 Virtual Materials Marketplace 2018-22, 278k€, <https://vimmp.eu>

SSD ING-IND/26 Teoria dello Sviluppo dei Processi Chimici

ADDITIONAL INFORMATION

Publications 205 publications in peer-review journals (source Scopus (source Scopus 20.6.2022))
4867 citations (source Scopus 20.6.2022)
35 - H index (source Scopus 20.6.2022)
115 publications in the last 10 years (source Scopus 20.6.2022)

Selected papers

- M. De Corato, D. Tammaro, P. L. Maffettone and N. Fueyo, Retraction of thin films coated by insoluble surfactants, *J. Fluid Mech.*, 942 , A55, (2022)
- M. Trofa, G. D'Avino and P. L. Maffettone, Numerical simulation of clogging in a microchannel with planar contraction, *Physics of Fluids*, 33, 083320 (2021)
- D. Tammaro, V. C. Suja, A. Kannan, L. D. Gala, E. Di Maio, G. G. Fuller and P. L. Maffettone, Flowering in bursting bubbles with viscoelastic interfaces, *Proceedings of the National Academy of Sciences*, 118, e2105058118 (2021)
- P. Memmolo, Z. Wang, V. Bianco, D. Pirone, M. M. Villone, P. L. Maffettone and P. Ferraro, Dehydration of plant cells shoves nuclei rotation allowing for 3D phase contrast tomography, *Light: Science & Applications*, 10, 187 (2021)
- F. Del Giudice, G. D'Avino and P. L. Maffettone, Microfluidic formation of crystal-like structures, *Lab on a Chip*, 21, 2069-2094 (2021)
- R. Funari, B. Miranda, K. Y. Chu, P. L. Maffettone and A. Q. Shen, Metal-enhanced fluorescence immunosensor based on plasmonic arrays of gold nanoislands on an etched glass substrate, *ACS Applied Nano Materials*, 3, 10470-10478 (2020)
- L. Miccio, F. Cimmino, I. Kurelac, M. M. Villone, V. Bianco, P. Memmolo, F. Merola, M. Mugnano, M. Capasso, A. Iolascon, P. L. Maffettone and P. Ferraro, Perspectives on liquid biopsy for label-free detection of "circulating tumor cells" through intelligent lab-on-chips, *View*, 1, 202000034 (2020)
- T. Cacace, P. Memmolo, M. M. Villone, M. De Corato, M. Mugnano, M. Paturzo, P. Ferraro and P. L. Maffettone, Assembling and rotating erythrocyte aggregates by acoustofluidic pressure enabling full phase-contrast tomography, *Lab on a Chip*, 19, 3123-3132 (2019)
- M. M. Villone, P. Memmolo, F. Merola, M. Mugnano, L. Miccio, P. L. Maffettone and P. Ferraro, Full angle tomographic phase microscopy of flowing quasi- spherical cells, *Lab on a Chip*, 18, 126-131 (2018)
- G. D'Avino, F. Greco and P. L. Maffettone, Particle migration due to viscoelasticity of the suspending liquid, and its relevance in microfluidic devices, *Annual Review of Fluid Mechanics*, 49, 341-360 (2017)