

MATTEO MASSARO ([matteo.massaro@unipd.it](mailto:matteo.massaro@unipd.it)) is currently Associate Professor of Applied Mechanics (SSD ING-IND/13, SC 09/A2) with the Department of Industrial Engineering of the University of Padova and has been granted the full professor national scientific qualification (ASN) since November 2018. He previously held positions as “Research Fellow” at Oxford University (UK, 2014-2015) and Padova University (2009-2013), where he graduated with honors in 2005 (MSc) and was granted a PhD in 2009. He held “Visiting Researcher” positions at the Department of Engineering of Cambridge University (UK, 2012) and at the Product Development Center of Harley-Davidson Motor Co. (US, 2008).

He has been invited to give a keynote presentation at the 27<sup>th</sup> IAVSD 2021 Symposium on the topic of “Lap-time simulation and optimization”. He gave an invited talk on “Minimum-time techniques and racetracks modeling” at the 2020 FIM (Fédération Internationale de Motocyclisme) Conference of Commissions and a semi-plenary presentation at the ‘ASME 2012 Dynamic Systems and Control Conference’ on the ‘The role of neuromuscular dynamics in the driver-vehicle- steering system’. He gave invited seminars at Oxford University (UK), Cambridge University (UK) and Tongji Shanghai University (CN) on topics related to road vehicle dynamics and aeroelasticity.

He has been the chair and scientific committee member of the Bicycle and Motorcycle Dynamics 2019 (BMD 2019), international Symposium on the Dynamics and Control of Single Track Vehicles.

He is/has been principal investigator (PI) of research projects with industrial partners on topics related to racetrack safety, vehicle dynamics, tyre modelling and testing, suspension modelling and testing, road modelling, lap-time problems, measurements of motorsport components, airbag modelling and certification, multibody modelling and simulation, mechanical vibrations.

He was involved in a number of publicly funded projects, including 7 FP EU “2-BE-SAFE” (2009-2011, “SAFERIDER” (2008-2011), the “Young Researcher Program” (Padova University) in 2011, Marie-Curie FP7-PEOPLE-IEF (EU) in 2013, FSE-DGR 2121/2015 (Veneto-Italy) in 2016, FSE-DGR 2216/2016 (Veneto-Italy) in 2017, DGR 1463/2019 (Veneto-Italy) in 2020.

He is the University Reference (tutor) for the International Student Competition MotoStudent (supported by Moto Engineering Foundation MEF). He has been involved in the Management Committee of the EU COST Action TU1407 (Scientific and technical innovations for safer Powered-Two-Wheelers). He was in charge of the development of the portable simulator for powered two wheelers of Padova University in 2011-2012 (exhibited at the “International Motorcycle Exhibition EICMA” in Milan, 2011 and 2012).

He serves/has served as a scientific reviewer for the following international journals and conferences: Vehicle System Dynamics; Meccanica; Mechatronics; Multibody System Dynamics; Mechanism and Machine Theory; IEEE/ASME Transactions on Mechatronics; IEEE Transactions on Human-Machine Systems; IEEE Transactions on Vehicular Technology; Sports Engineering; ASME Journal of Applied Mechanics; International Journal of Control; IMechE, Journal of Automobile Engineering; ASME Dynamic Systems and Control Conferences; ASME International Design Engineering Technical Conferences; IEEE Conference on Decision and Control; IEEE Conference on Mechatronics; Bicycle and Motorcycle Dynamics Conferences (BMD); IFAC Conferences.

He currently teaches the courses of "Applied Mechanics" (BSc) and "Vehicle Dynamics" (MSc) within the Mechanical Engineering school of the University of Padova.

He is a member of the board of supervisors of the PhD course in Industrial Engineering of the University of Padova and the head of the vehicle dynamics laboratory which features, among the other things, test rigs for the identification of the inertia tensor and center of mass of light vehicles, structural stiffness, modal properties, tyre properties and include an advanced PTW riding simulator.

He is the author, with D.J.N. Limebeer, of the book "Dynamics and Optimal Control of Road Vehicles", Oxford University Press, 2018, ISBN 9780198825715 (HB), 9780198825722 (PB), 9780198825715 (EB), DOI: 10.1093/oso/9780198825715.001.0001.

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- [J5] S. Lovato, **M. Massaro**, Three-dimensional fixed-trajectory approaches to the minimum-lap time of road vehicles, Vehicle System Dynamics, [DOI:10.1080/00423114.2021.1969024](https://doi.org/10.1080/00423114.2021.1969024)
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- [J9] G. Savino, R. Lot, **M. Massaro**, M. Rizzi, I. Symeonidis, S. Will, J. Brown, "Active safety systems for powered two-wheelers: A systematic review", Traffic Injury Prevention, 2020, 21(1), pp. 78-86, [DOI: 10.1080/15389588.2019.1700408](https://doi.org/10.1080/15389588.2019.1700408).
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## INTERNATIONAL BOOK

- [L1] D.J.N. Limebeer, M. Massaro, “Dynamics and Optimal Control of Road Vehicles”, Oxford University Press, 2018, ISBN 9780198825715 (HB), 9780198825722 (PB), 9780192559814 (ebook).

## BOOK CHAPTERS

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- [L3] V. Cossalter, R. Lot, **M. Massaro**, “Motorcycle Dynamics”, in “Modeling, Simulation and Control of Two-Wheeled Vehicles”, John Wiley & Sons, Ltd, [ISBN: 978-1-119-95018-9](#), 2014, pp. 3-42.
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## PAPERS TO INTERNATIONAL CONFERENCES

- [C1] C. Pastò, R. Lot, **M. Massaro**, “The effect of road unevenness on cornering performance of road vehicles”, IAENG 2021, London
- [C2] A. Doria, E. Marconi, and **M. Massaro**, “Identification of rider’s arms dynamic response and effects on bicycle stability”, Proceedings of the ASME 2020, IDETC/CIE, St. Louis, MO, USA.
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- [C7] E. Marconi and **M. Massaro**, “The effects of racetrack three-dimensionality on the dynamics of motorcycles”, 26th IAVSD Symposium on Dynamics of Vehicles on Roads and Tracks (IAVSD2019), Gothenburg, Sweden, 12-16 August 2019, in press.

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