

MARCO CAVEDON

Associate Professor

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ACADEMIC RECORD

Associate Professor

University of Milano-Bicocca

Jul. 2024 - present

Assistant Professor

RTD-B position at the University of Milano-Bicocca

Jul. 2021 - Jun. 2024

Habilitation

Italian Ministry of Education, Universities and Research

Nov. 2020

Senior Scientist

Max-Planck Institute for Plasma Physics

Jun. 2018 - Jun. 2021

Postdoctoral researcher

Max-Planck Institute for Plasma Physics

Jul. 2016 - May 2018

Doctor of Philosophy (Ph.D.) in physics

Technical University of Munich

Dec. 2012 - May 2016

Master Degree in Physics (*cum laude*)

University of Padua

Sep. 2010 - Jul. 2012

RESEARCH INTERESTS

- Edge and exhaust physics in fusion devices
- Spectroscopy in fusion and low temperature plasmas
- Impurity transport and radiation in tokamak plasma edge
- Plasma turbulence
- Plasma medicine

PUBLICATION STATS

131 peer-reviewed publications and approximately 250 conference contributions (status 01/02/2025)

ORCID: [0000-0002-0013-9753](https://orcid.org/0000-0002-0013-9753)

[Scopus \(ID: 56223597600\):](#)

- 177 Documents
- 2958 Citations
- H-index: 32

[Google Scholar:](#)

- 313 Documents
- 4068 Citations
- H-index: 38

MEMBERSHIPS AND INTERNATIONAL ROLES

Member of the Anthem (AdvaNced Technologies for HumancentrEd Medicine) project

Expert for low temperature plasma spectroscopy

📅 2023 – present

Responsible Officer for the DTT beam based spectroscopy diagnostics

Design leader of the Charge Exchange Recombination, Motional Stark Effect, and fast-ion D-alpha diagnostics)

📅 2022 – present

Member of the DTT EG-2 (Divertor and SOL physics) expert group

📅 2022 – present

International Tokamak Physics Activity (ITPA) expert

Expert for the “Scrape-Off-Layer & Divertor” and the “Transport & Confinement” Topical Groups

📅 2018 – present

Member of the Work Package Diagnostic and Control of EUROfusion (WPDC)

Expert for detachment control diagnostics in fusion reactors

📅 2021 – present

Member of the Work Package Tokamak Exploitation of EUROfusion (WPTE)

Expert for edge and divertor spectroscopy diagnostics

📅 2019 – present

Member of the Power Plant Physics and Technology (PPPT) department of EUROfusion

Expert for L-H transition predictions

📅 2018 – 2019

AWARDS AND GRANTS

“Vincenzo Ferraro” Award

Prize from the Italian Physical Society for a young researcher in the field of Plasma Physics.

📅 Jul. 2023

Best Young Speaker

International Conference on Diagnostics for Fusion Reactors (ICPC)

📅 Sep. 2021

International Joint Research at the Research Institute for Applied Mechanics (RIAM)

Kyushu University, Japan

📅 Apr. 2021

EUROFusion Researcher Grant

📅 Jan. 2018 – Dec. 2019

Itoh Project Prize

High commendations from the judges (EPS 2015)

📅 Jun. 2015

Prize for master thesis on plasma physics, engineering and thermonuclear fusion

Consorzio RFX, Padua

📅 Oct. 2012

LECTURES

Experimental Physics for AI 2

Artificial Intelligence bachelor's degree (6 ECTS)

📅 Oct. 2023 – present

📍 University of Milano, Milano-Bicocca, and Pavia

The nuclear energy in the energy transition

Divulgative class for the whole university (1.5 ECTS)

📅 Mar. 2022 – present

📍 University of Milano-Bicocca

Experimental Plasma Physics

Physics bachelor's degree (8 ECTS)

📅 May 2023 – present

📍 University of Milano-Bicocca

Introduction to Plasma Boundary in Fusion Devices

PhD School (2 ECTS)

📅 Mar. 2022

📍 University of Milano-Bicocca

Tutor of Plasma Physics I and II

Plasma Physics I (5 ECTS, winter term) and Plasma Physics II (5 ECTS, summer term)

📅 Oct. 2018 – Jul. 2021

📍 Technical University of Munich

Tutor of the Advanced Lab Course (FOPRA)

📅 2014 – 2015

📍 Technical University of Munich

Tutor of the Lab Course in Plasma Physics (Spectroscopy)

📅 2014

📍 University of Ulm

SUPERVISIONS

Supervisor of 5 Ph.D. students

University of Milano-Bicocca (2), University of Seville (2, co-supervisor), Ludwig Maximilian University of Munich (1, co-supervisor)

📅 2017 – present

📍 MPI for Plasmasphysics and University of Milano-Bicocca

Supervisor of 7 master students

Technical University of Munich (3), University of Seville (2), University of Milano-Bicocca (2)

📅 2017 – present

📍 MPI for Plasmas Physics and University of Milano-Bicocca

Supervisor of 6 bachelor students

University of Milano-Bicocca (6)

📅 2022 – present

📍 University of Milano-Bicocca

SELECTED CONFERENCE PARTICIPATIONS

Oral Contributions

26th International Conference on Plasma Surface Interaction in Controlled Fusion Devices

📅 May. 2024

📍 Marseille, France

34th meeting of the Scrape-Off-Layer and Divertor Topical Group of ITPA

📅 Feb. 2024

📍 Kyoto, Japan

Max-Planck Symposium on “New trends in experimental fusion plasma physics”

Plenary

📅 Jun. 2023

📍 Munich, Germany

48th European Physical Society Conference on Plasma Physics

📅 Jun. 2022

📍 Online

International Conference on Diagnostics for Fusion Reactors (ICPC)

Award: best young speaker

📅 Sep. 2021

📍 Varenna, Italy

German Physics Society Spring Meeting of the Matter and Cosmos Section (SMuK)

Invited

📅 Mar. 2019

📍 Munich, Germany

23rd International Conference on Plasma Surface Interactions in Controlled Fusion Devices

Invited

📅 Jun 2018

📍 Princeton, USA

44th European Physical Society Conference on Plasma Physics

📅 Oct. 2017

📍 Belfast, United Kingdom

15th International Workshop on H-mode Physics and Transport Barriers

Invited

📅 Oct. 2015

📍 Garching, Germany

Workshop on Electric Fields, Turbulence and Self-Organisation in Magnetised Plasmas

Invited

📅 Jun. 2015

📍 Lisbon, Portugal

Poster Contributions

5 Poster presentations on EPS Conference on Plasma Physics, Joint EU-US Transport Task Force Meeting, Annual Meeting of the APS Division of Plasma Physics, etc.