

CURRICULUM VITAE



Name: BATANI Dimitri Birth date: April 4, 1960

Nationality: Italian & French

CURRENT POSITION

Full Professor at University of Bordeaux, CELIA laboratory (Centre Lasers Intenses et Applications) since 1 Sept. 2011

since 1/12/14 **Professor of “Exceptional class”**

EDUCATION

- 1986 **Laurea** (Master) in physics, Milan University with 110 et lode/110 (maximum), Thesis «Propagation of high-power laser beams in atmosphere»
- 1987 - 1990 **PhD** in physics, University of Pisa. Thesis “Generation and characterization of Soft X-ray from laser-plasmas”, Supervisor Dr.A.Giulietti May-Oct. 1989: Rutherford Lab. with Dr.E.Turcu

PREVIOUS POSITIONS

- 2005 - 2011 Associated Professor, Physics Department, University of Milan Bicocca;
- 2003 Visiting Researcher at LOA Laboratory, Ecole Polytechnique, France
- 2000 - 2005 Researcher, Physics Department, University of Milan Bicocca;
- 1997 Visiting Researcher at LULI Laboratory, Ecole Polytechnique, France
- 1992 - 2000 Researcher, Physics Department, University of Milan;
- 1991 - 1992 Post-Doctoral Researcher, University of Milan;
- 1990 - 1991 Post Doc funded by SIF - Italian Physical Society, at LULI, Ecole Polytechnique, «Inertial Fusion» program, Supervisor: Prof. Edouard Fabre

HONORS AND PRIZES

- 2013 Fellow of the European Physical Society (EPS)
- 2011- 2014 Regional Excellence Chair “host chair” of the Region Aquitaine (Deliberation of the Regional Council of Aquitaine on November 14, 2011, Subject: support for research, excellence chairs)
- 2015 Senior Member of Institut Universitaire de France
- 2016 Member of the European Academy of Sciences (EURASC)
- 2018 Friedel-Volterra Prize 2017 jointly awarded by the Italian Physical Society (SIF) and the French Physical Society (SFP) “For the outstanding contributions in laser plasma interaction related to inertial confinement fusion”

TEACHING ACTIVITIES

The main teaching activities in the last years (after moving to University of Bordeaux)

- Course on “Waves”, for the License (B.Sc.), Bordeaux University (2011-2016)
- Laboratory course in “Laser Plasma” for the Master 1 & 2 at Bordeaux University
- Course on “Inertial Fusion”, Master 2 at Bordeaux University and National Gathering on «Fusion Sciences»
- Course on “Physics of Plasmas and Radiation” Master 2 at Bordeaux University
- Course on “Laser Physics and Non-linear Optics” at the University of Milano Bicocca

COLLABORATIVE PROJECTS MANAGEMENT

- 2023-... Spokeperson of the HiPER+ Project
- 2021-2024 Coordinator of the EUROFUSION Enabling Research project “*Advancing shock ignition for direct-drive inertial fusion*”
- 2019-2020 Coordinator of the EUROFUSION project “*Study of Direct Drive and Shock Ignition for IFE: Theory, Simulations, Experiments, Diagnostics development*”
- 2017-2018 Coordinator of the EUROFUSION project “*Preparation and Realization of European Shock Ignition Experiments*”

2011- 2017 Scientific coordinator of the project PETAL within ILP (Institut of Lasers & Plasmas)
 2011- 2019 Scientific coordinator and Responsible of the EquipeX PETAL+
 2013-2017 Chair of the COST Action MP1208 “*Developing the Physics and the Scientific Community for Inertial Fusion*”
 2005-2014 Responsible of the WG 10 (Fusion Experimental Program) of the European project “HIPER” (European High Power laser Energy Research)
 2010-2014 Vice-chair of the program SILMI of ESF, European Science Foundation

PAST AND PRESENT ACADEMIC FUNTIONS

- Member of the Ph.D. School in Physics of the University of Milan Bicocca;
- Referee for the journals: PRL, Phys. Rev., Phys. Plasmas, Nuclear Fusion, EPJ, etc.
- Referee for research projects submitted to ERC, LASERLAB, ANR, etc.
- Member of Editorial Boards of Laser Particle Beams (from 2004), Iraqi Journal of Physics (from 2017), High Power Laser Science Engineering (from 2019), Applied Physics B (2013-2022)
- Member of SIF, the Italian Physical Society (from 1987), of SFO, Société Francaise d’Optique, and SFP, Société Francaise de Physique (since 2016)
- Member of the International School of Plasma Physics, ISPP, “P.Caldirola” (from 2003)
- Elected Chair of the of the “Beam Plasma and Inertial Fusion” section of the Plasma Physics Division of EPS, European Physical Society
- Elected Member of the Board of the Plasma Physics Division of EPS (2004-2012)

ORGANIZATION OF SUMMER SCHOOLS FOR Ph.D. STUDENTS:

I organized the series of schools on “Atoms and plasmas in super-intense laser fields” in Erice, Sicily (9 schools: 8-14 July 2000; 5-15 July 2003; 27 June-5 July 2006; 10-16 July 2009; 14-24 July 2011; 21-31 July 2013; 12-22 July 2015, 7-17 July 2017, 1-10 July 2022). The first 6 co-directed with C.Joachain (Univ. Brussels), the last 3 with M.Passoni (Politecnico Milan)

SCIENTIFIC COMMUNITY IMPACT:

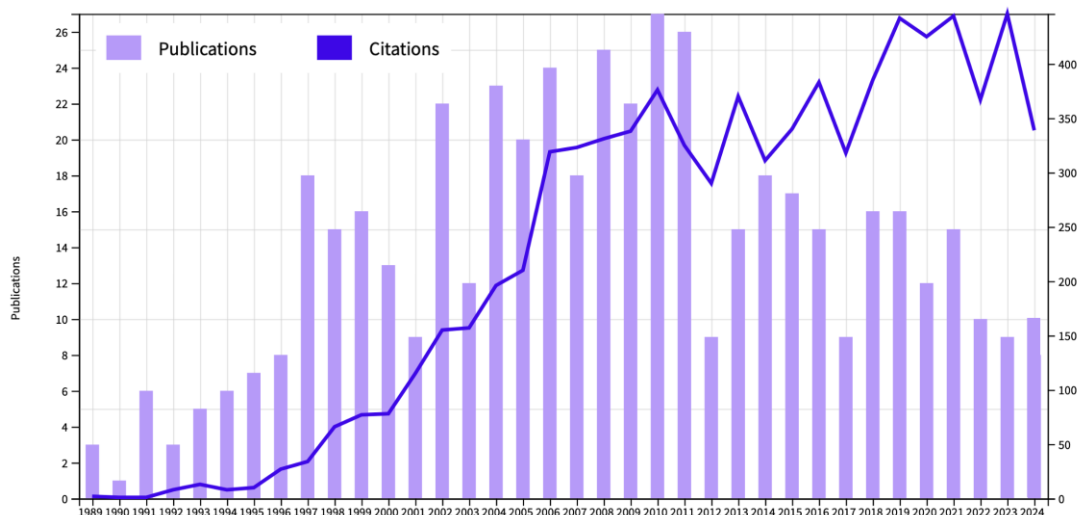
According to RESEARCH GATE: h-index 50, 687 Publications, 10098 Citations

According to GOOGLE SCHOLAR: h-index 57, 827 Publications, 12091 Citations

According to ISI WEB OF SCIENCE: h-index: 46, 498 Publications, 8034 Citations

According to SCOPUS: h-index: 47, 442 Publications, 8810 Citations

The following graph from Web of Science shows my papers and citations in the last 30 years (data from 2024 are of course not yet complete):



INVITED TALKS

During my career, I gave more than 100 invited talks in International Conferences, and I have been lecturing in 18 summer schools for Ph.D. students. Here the list of invited talks in 2023 and 2024 in international events not including lectures in Summer Schools (only those I presented personally as the first or as the only author):

- “Recent Measurements of boron nitride equation of state at very high pressure” PCCP Light

Workshop, June 2023, Bordeaux

- “X-Ray Phase-Contrast Imaging of Strong Shock Waves” LMJ User Meeting, Bordeaux, June 2023
- “Inertial Confinement Fusion: recent results and perspectives” Joint EPS-SIF International School on Energy 2023 - Joint EPS-SIF International School on Energy Global Challenges for Energy Sustainability, 17 - 22 July 2023 - Varenna, Italy
- “Hydrodynamics experiments on the shock ignition approach to direct-drive inertial fusion” 15 ISFNT International Symposium on Fusion Nuclear Technology, 10-15 September 2023, Las Palmas de Gran Canaria
- “Study of stopping power of laser-produced protons in a laser-produced plasmas” PLASMA 2023, September 19-22, Warsaw, Poland
- “Future for Inertial Fusion Energy in Europe: A roadmap” HPLSE conference, October 16-19, 2023, Suzhou, China
- “Future for Inertial Fusion Energy in Europe” ELI Laser-induced Fusion Meeting, 28-29 November 2023, Prague
- “State of the art in inertial fusion” PCCP-Light workshop, 27-28 June 2024, Bordeaux
- “Current state and future of research on Inertial Fusion Energy in Europe and the HiPER+ project” ICOPS International Conference on Plasma Science, Beijing, China June 2024
- “Inertial fusion research: science and strategic implications” Venice International University International, PhD Academy on “Energy and Society. The Case of Fusion” Venice, June 10-15, 2024
- “Present and future of research on Inertial Fusion Energy in Europe, EPS Conference on Plasma Physics, July 2024 Salamanca
- “Results in laser-driven hydrogen-boron fusion – progress towards fusion for energy?” 2nd International Workshop on the Quest for Proton-Boron Fusion 15-19 July 2024, Zushan (Mount Zu) Qinhuangdao, Hebei Province, China (on line)
- “Hugoniot measurements of boron nitride at multi-Megabar pressures” 37th ECLIM, European Conference on Laser Matter Interactions, 16-20 September 2024, Lisbon

ORGANIZATION OF CONFERENCES:

I have been chairman, vice-chairman, or director of many workshops and international conferences, 9 of which in the last 10 years. In addition, I have been member of the scientific committee of many more international scientific conferences.

In 2017, I organized the 2nd ECPD - European Conference on Plasma Diagnostics (Bordeaux, 18-21 April). In 2019, I was scientific chair the 3rd ECPD (Lisbon, Mai). Then, I have been one of the main organizers (sub-chair for Inertial Fusion and Laser-plasmas) of the editions of ECPD taking place in 2021 (Salamanca) and 2023 (Rethymno, Crete).

In 2019, I have been co-chair of the Technical Program Committee of the 11th IFSA - International Conference on Inertial Fusion Sciences and Applications (Osaka, September).

I have been one of the main organizers of the “proton boron fusion workshop”, 2nd edition in Catania, Italy, September 2023, 3rd edition in Frascati (Italy) September 2024.

In 2025 I will be one of the main organizers of 4th proton boron fusion workshop taking place in Belgrade (Serbia) in September and of the ECPD which will take place in April in Prague.

PhD SUPERVISION

NUMBER OF SUPERVISED THESES (COMPLETED): 28 in entire career, 5 in the last 5 years.

NUMBER OF SUPERVISED ONGOING THESES: 5