

Curriculum Vitae – Dr. MAKSYM TITOV

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Senior Scientist at CEA (Director of Research CEA)
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Education and Qualifications:

- 2013 **Habilitation (HDR)**, «Higgs Physics from the Tevatron to the LHC and Linear Colliders and Detector - Electronics Integration at the Instrumentation Frontier», Université Pierre et Marie Curie (Paris VI), Paris, France
- 2001 **Ph.D.** in Experimental High Energy Physics, “The Muon Detector at the HERA-B Experiment”, Institute of Theoretical and Experimental Physics (ITEP), Moscow, Russia
- 1996 **MS D.** in Experimental High Energy Physics, “Muon Identification and Background Studies at the HERA-B Experiment”, Moscow Institute of Physics and Technology (MIPT), Moscow, Russia

Employment / Academic Career:

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| 2023 | Scientific Associate at CERN (Organisation européenne pour la recherche nucléaire) |
| 2007 – today | Senior Staff Scientist (permanent), IRFU, CEA, Université Paris-Saclay, France |
| 2003 – 2007 | Research Associate, Albert-Ludwigs University of Freiburg, Germany |
| 1996 – 2003 | Visiting Research Scientist, DESY, Hamburg, Germany |
| 1996 – 2007 | Staff Scientist (permanent), ITEP, Moscow, Russia |
| 1994 – 1996 | Research Assistant, ITEP, Moscow Russia |

Professional Experience (Summary of Research Activities)

- **Physics Analysis at Hadron and Lepton Colliders:** searches for Higgs Boson, Supersymmetry, and Physics Beyond the Standard Model in several experiments: CMS @ CERN; DØ @ Fermilab; ILC @ Japan; HERA-B @ DESY Hamburg;
- **Advanced Detector Technologies and Instrumentation:** *micro-pattern gaseous detectors (MPGD) and semiconductor devices for radiation detection; development, construction, system integration, and maintenance of complex detector systems for large-scale HEP experiments;*
- **Science Management and Policy:** Spokesperson of the CERN - RD51 Collaboration (2023 & 2008 – 2015); Scientific Advisor to the CERN Council Delegates (Ukraine); International Linear Collider (ILC) Science Diplomacy Matters (Japan);
- **Organization of Large International Conferences** with more than 2500 participants and a conference budget of several millions EUR (*General Chair* of the 2016 IEEE NSS/MIC/RTSD Symposium in Strasbourg; *NSS Scientific Program Chair* (2003, 2008, 2012)); *Chair* of the Technology and Instrumentation in Particle Physics (*TIPP*) *Conference Steering Committee*; Member of Numerous Program and International Advisory Conference Committees;

Professional Experience (Framework of International Collaborations)

2007 – today	International Linear Collider Project (ILC) in Japan & International Development Team (https://linearcollider.org); LCTPC Collaboration (http://www.lctpc.org)
2007 – today	CMS Experiment at CERN, Geneva (https://home.cern/science/experiments/cms)
2007 – 2023	RD51 Collaboration at CERN, Geneva (https://rd51-public.web.cern.ch/welcome)
2007 – today	Particle Data Group (PDG) Collaboration (http://pdg.lbl.gov)
2004 – 2011	DZero Experiment at FERMILAB, Chicago, USA (http://www-d0.fnal.gov)
2003 – 2007	ATLAS Experiment at CERN, Geneva (https://atlas.cern)
1993 – 2003	HERA-B Experiment at DESY, Hamburg, Germany (http://www-hera-b.desy.de)
1994 – 1995	Main Astronomical Observatory of National Academy of Science of Ukraine

Science Management and Policy, Professional Committees

2023, 2008-2015 Spokesperson of the RD51 Collaboration at CERN “Development of Micro-Pattern Gaseous Detector (MPGD) Technologies”

2016 – 2022 Scientific Secretary of the RD51 Collaboration at CERN

2022 – today	Member of the Electron-Ion Collider Generic Detector R&D Review Committee
2020 – today	Member of the ILC International Development Team (IDT) WG1 (nominated by the European LDG (Lab Directors Group): ILC Pre-lab concept, structure & legal base
2021 – 2023	Chair of the TIPP Conference Steering Committee
2020 – 2022 (also in 2012 – 2014 and 2007 - 2009)	Elected Member of the IEEE Nuclear and Plasma Sciences Society (NPSS) Radiation Instrumentation Steering Committee (RISC)
2019 – today	Member of the INFN Advisory Technical-Scientific Council (INFN CTS)
2018 – today	Member of the KEK B-Factory (Belle) Program Advisory Committee
2017 – today	Scientific Advisor to CERN Council Delegates (Ukraine)
2015 – today	Vice-Director of the France-Ukraine International Laboratory / Program (LIA/IRP): “Instrumentation for Experiments at Accelerator Facilities & Accelerating Techniques”
2014 – 2020	Member of the Linear Collider Collaboration Physics and Detectors Executive Board
2011 – 2019	Member of the International Committee on Future Accelerators (ICFA): Instrumentation Innovation and Development Panel
2005 – 2012	Vice-Chair of the IEEE NPSS Transnational Committee (TNC)

Scientific Panels, Roadmaps, Collaboration Service, EU Horizon Projects

2023 – today	Chair of the European LDG (Laboratory Directors Group) Panel on “Sustainability Assessment of Future Accelerators”
2023 – today	Member of Science Coordination Board of the EU HORIZON - “EAJADE” (Europe-America-Japan Accelerator Development and Exchange Program); Chair of Work Package “Sustainable Technologies for Scientific Facilities”
2023 – today	Assistant Project Coordinator for the CMS HGCal (High Granularity Calorimeter) detector assembly infrastructure for cassette production at CERN
2023	<i>Member of the ECFA Detector R&D Panel for the Roadmap Implementation; Member of DRD1 (Gaseous Detectors) Working Group and Implementation Team</i>
2022 – today	<i>Gaseous Detectors Liaison to the ECFA “Physics, Experiment & Detector” WG3 (“Detector R&D”) - Studies towards a Higgs/EW/Top Factory</i>

2021 – 2023	Member of the CMS Collaboration Board Advisory Group
2021 – 2022	<i>Expert Review Panel of the ATLAS New Small Wheel Gas Mixture</i>
2020 - 2022	<i>MPGD Topical Group Convener and Liaison between the Energy and Instrumentation Frontiers for the Snowmass DPF Roadmap Process of the American Physical Society</i>
2020 - 2022	<i>Task Force Member of the ECFA Detector R&D Roadmap Process</i>
2019	Evaluation Panel of the National Research Center “Kharkiv Institute of Physics and Technology” of the National Academy of Science of Ukraine
2010 – 2011	<i>JLAB Review Panel of the SuperBigBite Spectrometer (SBS) Experiment</i>
2008 – 2009	Convener of the Tau Identification Group at the D0 Experiment at FNAL
2004 – 2006	Expert Review Panel to Assess Aging Effects in LHCb Gaseous Detectors at CERN
2003 – 2004	Assistant Project Manager responsible for the Assembly of the ATLAS Silicon Micro-Strip Tracker Modules (SCT) in the Freiburg University, Germany
2000 – 2003	Run Coordinator of the HERA-B Experiment, DESY, Hamburg, Germany
1998 – 2003	Project Leader / Run Coordinator of the HERA-B Muon Detector, DESY, Hamburg

Publications and Talks (ORCID ID: 0000-0002-1119-6614)

- More than 1500 publications (based on SCOPUS data base) with more than 120000 citations;
- h-index = 125 (SCOPUS); CMS Higgs discovery paper (2012) with 13000 citations;
- **More than 500 talks at International Conferences and Workshops** (including opening and summary talks), national and international institutes, colloquia, seminars and summer/winter schools, as well as talks for government officials, funding agencies and general public;

Research Monographs, Chapters in Collective Volumes (Gas Detectors only)

- F. Sauli, M. Titov, “Gaseous Detectors” in “Review of Particle Physics” (Particle Data Group Collaboration): R. L. Workman, et al. Prog. Theor. Exp. Phys. PTEP 2022, 083C01 (2022); P. A. Zyla et al., Prog. Theor. Exp. Phys. PTEP 2020, 083C01 (2020); M. Tanabashi et al., Phys. Rev. D 98, 030001 (2018); C. Patrignani et al., Chin. Phys. C40, 100001 (2016); K. Olive et al., Chin. Phys. C38, 090001 (2014); J. Beringer et al., Phys. Rev. D86, 010001 (2012); (K. Nakamura et al., J. Phys G37:075021 (2010); C. Amsler et al., Phys. Lett. B667 (2008)
- M. Titov, “Gaseous Detectors”, In: I. Fleck, M. Titov, C. Grupen, I. Buvat (Editors), “Handbook of Particle Detection and Imaging”, Springer, Cham. https://doi.org/10.1007/978-3-319-47999-6_11-2, 42 pp. (2021)
- M. Titov, “Next Frontiers in Particle Physics Detectors: INSTR2020 Summary and a Look Into the Future”, JINST 15 C10023, 50 pp., (2020)
- M. Titov, L. Ropelewski, “Micro-Pattern Gaseous Detector Technologies and RD51 Collaboration”, Mod. Phys. Lett. A28 1340022 (2013)
- M. Titov, “Radiation Damage and Long-Term Aging in Gas Detectors”, ICFA Instrumentation Bulletin Vol. 26:002 (2004), arXiv: physics/0403055; Proceedings of the 42nd Workshop of the INFN ELOISATRON Project “Innovative Detectors for Supercolliders”, pp.199-226, Erice (2003)
- M. Titov, M. Hohlmann, C. Padilla, N. Tesch, “Summary and Outlook of the International Workshop on Aging Phenomena in Gaseous Detectors”, ICFA Instrumentation Bulletin Vol. 24, pp. 22-53, arXiv: hep-ex/0204005, IEEE Trans. Nucl. Sci., Vol.49(4), pp.1609-1621 (2002)