Loukas Gouskos
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Professional positions:
- 2023-present: **Assistant Professor**, Physics Department, Brown University
- 2021-2023: **Experimental Physics Research Staff**, Physics Department, CERN
- 2019-2021: **Senior Research Fellow**, Physics Department, CERN

Professional preperation :
- **Postdoctoral Fellow** Physics Department, University California, Santa Barbara (2019)
- **Ph.D.** in Physics, University of Athens (2015)
- **M.Sc.** in Particle Physics, University of Athens (2009)
- **B.Sc.** in Physics, University of Athens (2006)

Areas of scientific interest:
Experimental particle physics, especially studies of the Higgs boson and searches for physics beyond the standard model (e.g., Supersymmetry). Development and deployment of Deep Learning (DL) techniques to a wide range of topics in particle physics, from event reconstruction to physics object identification and data analysis, both for current experiments and their upgrades. Detector design and physics potential of future particle physics experiments.

Research experience:
- Higgs couplings to 2nd and 3rd generation quarks
- Higgs pair production in bbbb and bb$\tau\tau$ decay modes
- Searches for Supersymmetry (Inclusive and Natural Supersymmetry)
- DL developments in particle physics (e.g., in jet physics)
- CMS Phase 2 upgrades (High Granularity Calorimeter): event reconstruction using DL and detector work
- Long-term future: FCC-hh/ee (Jet flavour identification with DL, Higgs physics, detector design
- CMS CASTOR calorimeter: R&D, test beams, cosmics run, installation and commissioning

Positions of responsibility in CMS:
- Convener (L2) of the CMS B2G physics analysis group (2023–present)
- Convener (L3) of the CMS Higgs to b/c-quarks physics analysis group (2022–2023)
- CMS "Physics Officer" responsible for physics objects groups (Cross-POG) (2020–2022)
- Co–Coordinator of the LHC inter-experiment Machine Learning (iML) group (2019–2020)
- Co–Coordinator of the CMS SUSY analyses combinations (2018–2020)
- Convener (L3) of the CMS missing transverse energy group (2016–2018)

Other scientific work:
- Referee for major international journals in High Energy Physics
- Organizing committee and convener of sessions at international symposia/conferences
- More than 50 plenary and invited talks at international conferences and institutes
- Reviewer for funding programs in the US

Awards and Scholarships:
- "CMS Young Researcher Prize" (2019)
- "CMS LPC Distinguished Researcher" (2019)
- "HRAKLEITOS II scholarship" (2010–2013)
- "ELKE scholarship" (2010)

Teaching and Outreach:
- **Supervision of PhD students and Postdoctoral fellows**: 8 PhD students, 4 CERN Research Fellows
- **Undergraduate courses and Labs** in Athens and UCSB(Electromagnetism, Experimental Nuclear and Particle Physics, Electromagnetism and waves),**Graduate courses** at Brown, Cyprus, India: Machine Learning in Physics
- Job Matching events, Motivational Talks, Outreach talks to High School students, CERN guide