

Gabriella Sciolla

Brandeis University
415 South Street, Waltham, MA 02454

sciolla@brandeis.edu
(781)736-2841

Education

- 1996 Ph.D., Torino University
- 1992 Laurea, Torino University, 110/110 cum laude and honorable mention

Professional Positions

- 2015–present Professor of Physics, Brandeis University
- 2011–2015 Associate Professor, Brandeis University
- 2003–2011 Assistant and Associate Professor, MIT
- 2002–2003 Pappalardo Fellow, MIT
- 2000–2002 Research Scientist, Laboratory for Nuclear Science, MIT
- 1996–2000 Research Associate, Stanford Linear Accelerator Center

Awards and Honors

- 2010 Buechner Undergraduate Advising Award, MIT
- 2007 Cecil and Ida Green Career Development Professorship, MIT
- 2006 Outstanding Faculty Mentor Award for Undergraduate Research, MIT
- 2005 Charles E. Reed Faculty Initiatives Fund, MIT

Selected Professional Activities

- 2016–present SNOLAB Board of Directors
- 2014–present High Energy Physics Advisory Panel (HEPAP)
- 2014–present Coordinating Panel on Advanced Detectors (CPAD)
- 2013–present US ATLAS Deputy Physics Advisor
- 2013 US ATLAS Tier 3 Task Force (Co-chair)
- 2010–2014 Fermilab Physics Advisory Committee (PAC)
- 2011 DPF Task Force on Instrumentation in High Energy Physics
- 2003–2005 Executive Committee of the SLAC Users Organization (Chair 2003–04)
- 2003–2005 BABAR Speakers Bureau (Chair 2005–06)

Experimental Collaborations/Synergistic Activities

- 2011–present ATLAS at CERN
- 2007–2011 DMTPC - Dark Matter Time Projection Chamber
- 1996–2008 BABAR at SLAC
- 1992–1996 DELPHI at CERN

Postdoctoral Scholars Advised

Max Goblirsch, 2016-present.

Gaetano Barone, 2015-present.

Giacomo Artoni, 2013-2015, now Postdoctoral Fellow at University of Oxford.

Rozmin Daya, 2011-2014, then Postdoctoral Fellow at U. Mass Amherst.

Stephen Sekula, 2004-2007, now Associate Prof. at the Southern Methodist University.

James Battat, 2008-2010 (Pappalardo Fellow), now Assist. Prof. at Wellesley University.

Denis Dujmic, 2007-2008, now Research Scientist at L3 Security and Detection Systems.

Ph.D. Students Advised

Alessio Venturini, Hannah Herde, Kevin Loew, Laura Bergsten, current students.

Stafano Zambito, Ph.D. 2015, now postdoc at Harvard University.

Eric Fitzgerald, Ph.D. 2013, now Web Scientist in Salt Lake City.

Minliang Zhao, Ph.D. 2008, now at Oracle, California.

Karsten Koeneke, Ph.D. 2007, now Assistant Professor in Freiburg, Germany.

Selected Recent Publications

Muon reconstruction performance of the ATLAS detector in proton-proton collision data at $\sqrt{s}=13$ TeV, arXiv:1603.05598 [hep-ex], submitted to Eur. Phys. J. C.

Search for dark matter in events with heavy quarks and missing transverse momentum in pp collisions with the ATLAS detector, Eur. Phys. J. C **75**, no. 2, 92 (2015), arXiv:1410.4031 [hep-ex].

Search for new phenomena in the dilepton final state using proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector, ATLAS-CONF-2015-070, Dec. 2015, to be submitted to peer reviewed journal in April 2016.

Measurements of the Higgs boson production cross section at 7, 8 and 13 TeV center-of-mass energies and search for new physics at 13 TeV in the $H \rightarrow ZZ^ \rightarrow l^+l^-l'^+l'^-$ final state with the ATLAS detector*, ATLAS-CONF-2015-059, Dec. 2015.

Measurements of the total cross sections for Higgs boson production combining the $H \rightarrow \gamma\gamma$ and $H \rightarrow ZZ \rightarrow 4l$ decay channels at 7, 8 and 13 TeV center-of-mass energies with the ATLAS detector, ATLAS-CONF-2015-069, Dec. 2015.

Muon reconstruction performance in early $\sqrt{s}=13$ TeV data, ATL-PHYS-PUB-2015-037, presented at the 2015 Lepton-Photon Conference, Aug. 2015.

Measurements of Higgs boson production and couplings in the four-lepton channel in pp collisions at center-of-mass energies of 7 and 8 TeV with the ATLAS detector, Phys. Rev. **D91**, 012006 (2015).

Measurements of Higgs boson production and couplings in diboson final states with the ATLAS detector at the LHC, Phys. Lett. B **726**, 88 (2013).

Observation of a new particle in the search for the Standard Model Higgs boson with the ATLAS detector at the LHC, Phys. Lett. **B716**, 1 (2012).

Search for high-mass dilepton resonances in pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector, Phys. Rev. D **90**, no. 5, 052005 (2014), arXiv:1405.4123 [hep-ex].

Search for high-mass resonances decaying to dilepton final states in pp collisions at $\sqrt{s} = 7$ TeV with the ATLAS detector, JHEP **1211**, 138 (2012).

Search for dilepton resonances in pp collisions at $\sqrt{s} = 7$ TeV with the ATLAS detector, Phys. Rev. Lett. **107**, 272002 (2011).

Prospects for collider searches for dark matter with heavy quarks, G. Artoni, T. Lin, B. Penning, G. Sciolla, A. Venturini, [arXiv:1307.7834 [hep-ex]].

Measurement of the muon reconstruction performance of the ATLAS detector using 2011 and 2012 LHC proton-proton collision data, Eur. Phys. J. C **74**, no. 11, 3130 (2014).

Selected Recent Talks

Double the energy, double the fun, Physics Division Colloquium, Argonne National Laboratory, March 2016.

Measurement of the Higgs couplings at the LHC and constraints on New Physics, PACIFIC 2014, Sep. 2014, Moorea, French Polynesia.

New measurements of cross-sections and width of $H \rightarrow ZZ^{()} \rightarrow 4\text{-leptons}$* , ICHEP2014, Valencia (Spain), July 2014.

Review of the ATLAS Higgs results from Run-1, APS Invited Talk, Savannah, Apr. 2014.

Dark Matter and Heavy Quarks in scalar interactions at hadron colliders, Dark Matter at the LHC Workshop, Chicago, Sep. 2013.