

Basil Schneider

contact

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about

Swiss citizenship
Born 19th March 1982

languages

German (native)
English (fluent)
French (moderate)

computing

Linux
C++, Python
Root, RooFit, RooStats
Bash, Sed, Awk
L^AT_EX
VHDL

besides physics

Cycling
Hiking
Music

education & employment

- Nov '14 - now **Postdoctoral Fellow** at the **ATLAS experiment** TRIUMF
- Jan '11 - Jul '14 **Ph.D.** at the **ATLAS experiment** University of Bern
Ph.D. Thesis: A general approach to search for supersymmetry at the LHC by combining signal enhanced kinematic regions using the ATLAS detector (Supervisor: Prof. A. Ereditato)
- Sep '08 - Mar '10 **Master** of Science in **Theoretical Physics** ETH Zurich
Master Thesis: The partition function of meromorphic conformal field theories at higher genus (Supervisor: Prof. M. Gaberdiel)
- Oct '04 - Sep '08 **Bachelor** of Science in **Experimental Physics** ETH Zurich
Bachelor Thesis: Untersuchung der Cluster-Struktur von Elastomerpartikeln durch Simulation des Aggregationsvorganges und Partikelgrößen mittels dynamic light scattering (Supervisor: Dr. Cornelius Gauer)
- Sep '04 **Comprehensive entrance exam** ETH Zurich
Exam at the level of a Matura

conferences

- Jun '15 **USATLAS Workshop at University of Illinois at Urbana-Champaign**
Speaker: "Supersymmetry in run 2"
- May '15 **Mitchell Workshop on Collider and Dark Matter Physics**
Speaker: "Supersymmetry searches in ATLAS"
- May '13 **1st LHC Physics Conference, Barcelona, Spain** ATL-PHYS-SLIDE-2013-350
Poster: "Search for direct production of charginos and neutralinos in events with three leptons and missing transverse momentum in 21 fb⁻¹ of pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector"
- Jun '12 **Swiss Physical Society**
Speaker: "New Optical receiver modules for the insertable B-Layer at the ATLAS project"
- Jun '11 **Physics at LHC, Perugia, Italy** ATL-PHYS-SLIDE-2011-423
Poster: "SUSY Searches at ATLAS in Multilepton Final States with Jets and Missing Transverse Energy"
- Jun '11 **Swiss Physical Society**
Speaker: "Insertable b-Layer: A new layer for the ATLAS detector at CERN"

teaching

Jan '11 - now	Lab Course Supervising and assisting Physics undergraduate students working on fundamental experiments in mechanics and electronics	University of Bern
Jan '11 - now	Physics for Biologists Assisting 1 st year Physics course	University of Bern
Jul '11 - now	Private lessons for high-school graduates Private lessons in Mathematics, Statistics and Physics	Interlink Schulberatung GmbH
2007/2008	Teaching assistant Teaching assistant for environmental science students in Calculus	ETH Zurich

publications

I am co-author of 302 ATLAS publications; for a full list, see <http://inspirehep.net/author/profile/B.Schneider.1>

Publications where my contributions are substantial:

Jul '15	First look at proton proton collision data at $\sqrt{s} = 13$ TeV in preparation for a search for squarks and gluinos in events with missing transverse energy, jets, and an isolated electron or muon	ATL-PHYS-PUB-2015-029
Mar '15	Expected sensitivity studies for gluino and squark searches using the early LHC 13 TeV Run-2 dataset with the ATLAS experiment	ATL-PHYS-PUB-2015-005
Jun '14	A general approach to search for supersymmetry at the LHC by combining signal enhanced kinematic regions using the ATLAS detector (PhD thesis)	CERN-THESIS-2014-056
May '14	Search for supersymmetry in events with four or more leptons in $\sqrt{s} = 8$ TeV pp collisions with the ATLAS detector	arXiv:1405.5086 [hep-ex]
Feb '14	Search for direct production of charginos and neutralinos in events with three leptons and missing transverse momentum in $\sqrt{s} = 8$ TeV pp collisions with the ATLAS detector	JHEP04(2014)169
Jun '13	Search for direct production of charginos and neutralinos in events with three leptons and missing transverse momentum in 21 fb ⁻¹ of pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector	ATL-PHYS-PROC-2013-145
Mar '13	Search for supersymmetry in events with four or more leptons in 21 fb ⁻¹ of pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector	ATLAS-CONF-2013-036
Mar '13	Search for direct production of charginos and neutralinos in events with three leptons and missing transverse momentum in 21 fb ⁻¹ of pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector	ATLAS-CONF-2013-035
Nov '12	Search for direct production of charginos and neutralinos in events with three leptons and missing transverse momentum in 13.0 fb ⁻¹ of pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector	ATLAS-CONF-2012-154
Nov '12	Search for Supersymmetry in events with four or more leptons in 13 fb ⁻¹ pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector	ATLAS-CONF-2012-153
Aug '12	Search for direct production of charginos and neutralinos in events with three leptons and missing transverse momentum in $\sqrt{s} = 7$ TeV pp collisions with the ATLAS detector	Phys.Lett. B718 (2013) 841-859
Nov '11	The ATLAS IBL BOC Demonstrator	ATL-INDET-PROC-2011-038
Oct '11	SUSY Searches at ATLAS in Multilepton Final States with Jets and Missing Transverse Energy	ATL-PHYS-PROC-2011-201

internal notes

Jul '15	First look at proton proton collision data at $\sqrt{s} = 13$ TeV in preparation for a search for squarks and gluinos in events with missing transverse energy, jets, and an isolated electron or muon	ATL-COM-PHYS-2015-718
May '15	ATLAS Large eta task force report	ATL-COM-UPGRADE-2015-013
Feb '15	Expected sensitivity of search for squarks and gluinos in events with isolated leptons, jets and missing transverse momentum at $\sqrt{s} = 13$ TeV with the ATLAS detector	ATL-COM-PHYS-2015-133
Jan '15	Re-interpretations and combinations of electroweak limits in 20.3 fb ⁻¹ pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector	ATL-COM-PHYS-2015-011
Dec '13	Search for supersymmetry in events with four or more leptons in $\sqrt{s} = 8$ TeV pp collisions with the ATLAS detector	ATL-COM-PHYS-2013-1621
Oct '13	Search for supersymmetry in events with three leptons and missing transverse momentum in 21 fb ⁻¹ pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector	ATL-PHYS-INT-2013-021
Jul '13	Search for supersymmetry in events with three leptons and missing transverse momentum in 20.3 fb ⁻¹ pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector	ATL-COM-PHYS-2013-888
Dec '12	Search for Supersymmetry in events with four or more leptons in 20.7 fb ⁻¹ pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector	ATL-COM-PHYS-2012-1819
Dec '12	Search for Supersymmetry in events with four or more leptons in 13 fb ⁻¹ pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector	ATL-PHYS-INT-2012-096
Dec '12	Search for supersymmetry in events with three leptons and missing transverse momentum in 13 fb ⁻¹ pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector	ATL-PHYS-INT-2012-095
Sep '12	SUSY Searches in the Final States with Three Leptons and Missing Transverse Momentum at ATLAS	ATL-PHYS-INT-2012-059

references

Prof. Antonio Ereditato	PhD supervisor
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Detector Laboratory, Bergische Universität Wuppertal +49 202 439-2811, flick@physik.uni-wuppertal.de	

outreach

- Nov '13 - now **Official ATLAS underground guide**
- Mar '12 - Mar '13 **Masterclasses**
Helping high school students performing measurements on real data from LHC
- Sep '11 **Nacht der Forschung**
Presenting LHC physics on a poster and answering questions of the public in a research outreach event at the University of Bern

awards

- Mar '15 **Faculty award winner of the University of Bern**
Award for the best PhD thesis in physics at the University of Bern in the year 2014

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