

SHIBANANDA SAHOO

CONTACT INFORMATION

Department of Physics,
IIT Guwahati, Guwahati, India 781039

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RESEARCH INTERESTS

- Higgs Phenomenology
 - Dark Matter Phenomenology
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EDUCATION

Indian Institute of Technology Guwahati, India

Ph.D(pursuing), Physics, *Expected:* July 2019

- Thesis Topic: *Exploring Multi-Higgs Models at Colliders*
- Advisor: Prof. Poullose Poullose

Utkal University, Vanivihar Bhubaneswar, India

M.Sc., Physics, July 2012

Bhadrak (Autonomous) College Bhadrak, Odisha, India

B.Sc., Physics, July 2010

RESEARCH EXPERIENCE

Research Scholar (High Energy Physics Phenomenology) July 2012 to present
Department of Physics,
IIT Guwahati
Supervisor: Prof. Poullose Poullose

PUBLICATION IN JOURNALS

1. B. Coleppa, B. Fuks, P. Poullose, **S.Sahoo** "Seeking Heavy Higgs Bosons through Cascade Decays", *Published in Phys.Rev.D97 (2018) no.7, 075007*. arxiv:1712.06593
 2. D. Borah, S. Sadhukhan, **S.Sahoo**, "Lepton Portal Limit of Inert Higgs Doublet Dark Matter with Radiative Neutrino Mass", *Published in Phys.Lett. B771 (2017) 624-632*. arxiv: 1703.08674
 3. S. Alam, S. Behera, S. Kumar, **S.Sahoo** "Constraining Capability of $Z\gamma h$ Production at ILC", *Published in Int.J.Mod.Phys. A32 (2017) no.02n03, 1750017*. arxiv: 1701.08250
 4. P. Poullose, **S.Sahoo**, K. Sridhar "Exploring the Inert Doublet Model through the dijet plus missing transverse energy channel at the LHC", *Published in Phys.Lett. B765 (2017) 300-306*. arxiv: 1604.03045
 5. D. Borah, **S.Sahoo**, S. Patra "Subdominant leftright scalar dark matter as origin of the 750GeV di-photon excess at LHC", *Published in Int.J.Mod.Phys. A31 (2016) no.17, 1650097*. arxiv:1601.01828
 6. S. Kumar, P. Poullose, **S.Sahoo** "Study of Higgs-gauge boson anomalous couplings through $e^-e^+ \rightarrow WW^+H$ at ILC", *Published in Phys.Rev. D91 (2015) no.7, 073016*. arxiv:1501.03283
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ATTENDED
SCHOOLS,
WORKSHOPS &
CONFERENCES

- Preparatory SERC School held at Tezpur University, Assam during June 17-July 13 in 2013.
 - Discussion Meeting on EWSB and Flavours in the light of LHC held at IIT Guwahati, Assam during February 20-22 in 2014.
 - Sangam@ 2014:Instructional Workshop in Particle Physics held at HRI, Allahabad, during March 24-29 in 2014.
 - XXI DAE-BRNS High Energy Physics Symposium held at IIT Guwahati, Assam during 8-12 December in 2016.
 - Sangam@ 2016:Instructional Workshop in Particle Physics held at HRI, Allahabad, during February 12-15 in 2016.
 - XXII DAE-BRNS High Energy Physics Symposium held at Delhi University, Delhi during 12-16 December in 2016.
 - XXXI SERC Main School held at Kalyani University, West Bengal during 9th-23th January in 2017.
 - Collider Physics Workshop: Events, Analysis, QCD held at IIT Guwahati, Assam during 27th-31st March in 2017.
 - SCALARS 2017 held at University of Warsaw, Poland during 30th November-3th December in 2017.
 - GIAN Course on Electroweak Symmetry Breaking, Flavour Physics and BSM held at IIT Guwahati, Assam during 18-22 December in 2017.
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AWARDS &
ACHIEVEMENTS

- Awarded P.G.(Basic Science) Scholarship -2010 funded by Institute of Mathematics and Applications, Andharua, Bhubaneswar-751003 (From 2010-2012).
 - Qualified GATE 2012 in Physics.
 - Qualified JEST 2012 in Physics.
 - Qualified CSIR-NET(Lectureship) in 2012-June Session in Physics.
 - Awarded MHRD scholarship for pursuing PhD at IIT Guwahati.
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SKILLS

- Familiar with C, Fortran, LATEX, Mathematica.
 - Collider Tools: Madgraph, Pythia, Madanalysis, micrOmega.
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TEACHING
EXPERIENCE

- Teaching Assistant** 2014-2015
- PH 101 LAB (General Physics)
 - PH 405 LAB (Numerical Physics)
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PH.D. COURSE
WORK

- Classical Mechanics
 - Quantum Mechanics
 - Numerical Methods
 - Electrodynamics
 - Statistical Mechanics
 - Quantum Field Theory
- CPA: 8.5/10

PERSONAL
DETAILS

S/O : Mr. Kartikeswar Sahoo
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Odisha, 758015
Status : Single

REFERENCES

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