

yossofeshaq

scientist

contact

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languages

english mother tongue
farsi & french fluency

programming

♥ Python
C++, ROOT, R, LaTeX

education

2008–2014 **Ph.D, M.A.** of Physics University of Rochester
Search for New Physics in All-hadronic Events with AlphaT in 8 TeV Data with CMS

This thesis describes a search I conducted for supersymmetry in physics collision at the Large Hadron Collider by employing various data analysis techniques

2003–2007 **Bachelor** of Physics The University of California, San Diego
Specialization in Astrophysics

experience

2009–2014 **CERN** Geneva, Switzerland
Graduate Research in Particle Physics

In the 4+ years at CERN, I conducted experimental searches for new physics, performed measurements for the collaboration, and participated in the operation of the Compact Muon Solenoid detector.

- Search for Supersymmetry
 - integral part of fast-paced analysis group
 - used complex data analysis to isolate extremely rare signal in Terabytes of data
 - contributed to the discovery of the Higgs Boson 🦋
- Detector Operation
 - one of two experts in the hadronic detector control systems
 - frequently coordinated a group of ~15 physicist and engineers
 - represented sub-detector group in daily meetings
 - organized, chaired and presented in weekly meetings

2008 **Alameda Applied Sciences Corp** Alameda, California
Summer Research

Applied research in plasma pulse-power technology

- worked with project leader to optimize neutron output
- was offered full-time extension

2007–2008 **Kaplan Co.** San Diego, California
Teacher

- Responsible to teach various Kaplan SAT methods to 20+ students
- Passed intensive training including a required 90th+ percentile score on diagnostic test to become teacher
- Received outstanding evaluations from students and teacher

2006–2008 **UCSD Mechanical and Aerospace Engineering Dept.**
Research Assistant

San Diego, California

- Integral part of small group dedicated to the research of plasma dynamics.
- Responsible for running experiments, analyzing data, presenting results, and helping publish.
- Selected to help conduct a three week experiment in Imperial College, London, UK

activities and Awards

- Ranked 2nd in graduate teacher assistant evaluations
- “Research scholar award for outstanding academic achievement in the presentation of a scholarly paper at the 20th annual UCSD Undergraduate Research Conference”
- “Outstanding Poster Award at 8th annual Engineer Undergrad Research Conference Assembly”

skills

complex data analysis, data modeling, regular expression, scripting, linux

interests

professional: physics problems, data analysis **personal:** treasure hunting, chess, running, dancing

publications

thesis

Search for New Physics in All-hadronic Events with AlphaT in 8 TeV Data with CMS

Yossof Eshaq, Aran Garcia-Bellido

Presented 05 Dec, 2014

article in peer-reviewed journal

Search for supersymmetry in final states with missing transverse energy and 0, 1, 2, or ≥ 3 b-quark jets in 7 TeV pp collisions using the α_T variable

S. Chatrchyan

JHEP 01 (2013) p. 077. 2013

Search for supersymmetry in hadronic final states with missing transverse energy using the variables α_T and b-quark multiplicity in pp collisions at $\sqrt{s} = 8 \text{ TeV}$

S. Chatrchyan

The European Physical Journal C 73.9, 2568 (2013). Springer Berlin Heidelberg, 2013

Quantitative Measurements of Wire Ablation in Tungsten X -pinches at 80 kA

S.C. Bott, D.M. Haas, Y. Eshaq, U. Ueda, S.V. Lebedev, J.P. Chittenden, J. Palmer, S.N. Bland, G.N. Hall, D.J. Ampleford, F.N. Beg

Plasma Science, IEEE Transactions on 36.5 (2008) pp. 2759–2764. 2008