ROB SNIHUR

Name	Robert Michael Snihur
Address	1821 N Albany Ave, Chicago, IL 60647 USA
Telephone	773-451-5832
E-Mail	snihur@fnal.gov

BACKGROUND

Scientific research in experimental particle physics, primarily at the Fermi National Accelerator Laboratory in Chicago and the CERN laboratory in Switzerland. Statistical analysis of massive data samples and Monte Carlo simulations in a Linux-based computing environment distributed on PCs worldwide.

ACADEMIC QUALIFICATIONS

Ph.D., Particle Physics	Northwestern University, USA 2000
M.S., Physics	University of Maryland, USA 1993
B.S., Physics with Electrical Engineering	Massachusetts Institute of Technology, USA 1989

RESEARCH POSITIONS

2009-2016	Research Coordinator	CMS Collaboration	University of Nebraska-Lincoln, USA
2005-2008	Research Associate	CDF Collaboration	McGill University, Canada
2003-2005	Postdoctoral Fellow	CDF Collaboration	McGill University, Canada
2000-2003	Postdoctoral Fellow	CDF Collaboration	University College London, UK
1993-2000	Graduate Assistant	D0 Collaboration	Northwestern University, USA
1990-1993	Graduate Assistant	D0 Collaboration	University of Maryland, USA
1989-1990	Technical Assistant	ZEUS Collaboration	York University, Canada
1988-1989	Undergraduate Assistant	SLD Collaboration	MIT, USA

RESEARCH HISTORY : SUMMARY

University of Nebraska-Lincoln (CMS Collaboration)
Research Coordinator
Supervisor Prof. David Swanson

- Coordinate researchers at dozens of universities in the US to analyse data from the Compact Muon Solenoid (CMS) experiment at CERN's Large Hadron Collider (LHC). Plan, build, and operate Tier-3 computing sites consisting of hundreds of PCs and hundreds of terabytes of storage for CMS data. Monitor that each computing site is working properly within the worldwide computing grid for LHC data analysis, coordinate servicing when needed, and troubleshoot end-to-end problems.

- Install and maintain tools (Phedex) to efficiently transfer data from larger CMS computing sites to US Tier-3 sites. Deploy, debug, and use the Open Science Grid (OSG) software stack and Virtual Data toolkit. Evaluate and test emerging storage technologies, and optimize their configurations for CMS data analysis.
- Work with university based physicists, the CMS software and computing department, OSG personnel, and European collaborators, as part of the US CMS grid services team based at Fermilab.
- Organized national workshops for Open Science Grid and CMS Tier-3 Computing
- Poster presented by invitation at Computing in High Energy Physics conference 2012 on *Computing at CMS Tier-3 Sites*

McGill University (CDF Collaboration)
Research Associate & Postdoctoral Research Fellow
Supervisor Prof. Andreas Warburton

- Led research analysis on inclusive b-jet cross section through several observables and at the highest energies in the world.
- Developed advanced machinery for Monte Carlo Production on GRID computing farms at remote sites worldwide.
- Supervised students in Ph.D., MS, and undergraduate research:
  Greg Williams - Inclusive Production of b-jets in Proton-Antiproton Collisions at $\sqrt{s} = 1.96$ TeV
  Phillippe Roy - Relative Transverse Momentum Distributions of Bottom Hadrons Produced in Proton-Antiproton Collisions at $\sqrt{s} = 1.96$ TeV
  Adrian Buzatu - Search for Higgs Boson Production in Association with a W Boson using Isolated Tracks
- QCD Group Representative to Simulation Group, responsible for generating an simulating hundreds of millions of proton-antiproton collisions for all analyses within the QCD group.
- Editor for "Measurement of the Inclusive Jet Cross Section using the k_T Algorithm in p anti-p Collisions at $\sqrt{s} = 1.96$ TeV with the CDF II Detector" (published in PRD), and "Measurement of the Central Inclusive Jet Cross Section using the k_T Algorithm in p anti-p Collisions at $\sqrt{s} = 1.96$ TeV" (published in PRL).
- Recent invited talks at conferences:
  Lake Louise Winter Institute 2008 - *Jet Physics with the Collider Detector at Fermilab*
  Canadian Association of Physicists Congress 2007 - *Recent results from the Collider Detector at Fermilab*

University College London (CDF Collaboration)
Postdoctoral Research Fellow
Supervisor Dr. Mark Lancaster

- Co-convenor of QCD Jet Analysis group.
- Data Validation Leader, responsible for ensuring physics-quality control of data for entire CDF collaboration.
- Chief editor for "Double Diffraction dissociation at the Fermilab Tevatron collider" (published), and "Central pseudorapidity gap in events with a leading antiproton at the Fermilab Tevatron proton-antiproton collider" (published).
- QCD Group Representative to Trigger and Dataset Working Group, responsible for commissioning and monitoring of all QCD-related triggers.
- Offline Calibration Coordinator for CDF collaboration.
- Data Acquisition Ace and detector shifter during Run 2 data collection.

Northwestern University (D0 Collaboration)
Ph.D. thesis "Subjet Multiplicity in Gluon and Quark Jets Reconstructed with the k_T Algorithm in Proton-Antiproton Collisions"
Advisor Prof. Heidi Schellman

- Proposed original idea to select unbiased quark and gluon jet samples at a hadron collider, leading to thesis.
- Reconstructed entire 1994-96 dataset (Runs 1B and 1C) of QCD events with the k_T jet algorithm.
- Generated, simulated, reconstructed, and ntupled millions of Monte Carlo events for the D0 QCD group.
- Pioneered use of tape robots for large-scale offline data processing.
- Supervised derivation of offset correction to jet energy.
- Designed, wired, and tested a TRD-trigger digital electronics board (including programming of FPGAs).
- Maintained high voltage system for tracking chambers during Run 1 data collection.
- Served as detector shifter during Run 1 data collection.
- Led D0 study of dijet mass resolution for *Fermilab Run 2 Higgs Workshop.*
- Convenor of Jet Physics Working Group for *Fermilab Run 2 QCD and Weak Bosons Workshop.*

PUBLICATION LIST

http://tinyurl.com/snihurpub