

# IUCF Graduate Thesis List 1977–2010

Wai-Ming Tam	2009	Characterization of the Proton Ion Source Beam for the High Intensity Neutrino Source at Fermilab
Xiaoying Pang	2009	Independent Component Analysis for Beam Measurement
Chong Shik Park	2009	Investigations of Electromagnetic Space-Charge Effects in Beam Physics
Da Luo	2009	Measurement of the Parity Non-conserving Spin Rotation of Cold Neutrons through a Liquid Helium Target
Crystal Bailey	2009	An Investigation of Four-Body Nuclear Systems: a Measurement of the Cross Section and Analyzing Power for $d + d$ Elastic and $d + d \rightarrow p + t$ at Intermediate Energies
Tepei Katori	2008	A Measurement of the Muon Neutrino Charged Current Quasielastic Interaction and a Test of Lorentz Violation with the MiniBooNE Experiment
Yan Haiyang	2008	Applications of Polarized $^3\text{He}$ Filters in Neutron Scattering
Yue Hao	2008	Beam-Beam Interaction Study in ERL based eRHIC
Qiong Wu	2008	Measurements and Studies of Secondary Electron Emission of Diamond Amplified Photocathode
Yunchang Shin	2008	Studies in Neutron Phase Space cooling for Cold and Ultra-Cold Neutron Sources
Weihong He	2008	Double Spin Asymmetry in Inclusive $\pi^0$ Production for Longitudinally Polarized Proton Proton Collisions at $\sqrt{s} = 200$ GeV at the Endcap Electromagnetic Calorimeter at STAR
Fei Wang	2008	Vertical Beam Emittance Correction with Independent Component Analysis Measurement Method
David Christopher Cox	2008	A Measurement of the Neutral Current Neutrino-nucleon Elastic Cross Section at MiniBooNE
Christopher Dale Bass	2008	Measurement of the Parity-violating Spin-rotation of Polarized Neutrons Propagating through Liquid Helium
Xin Tong	2007	Development of $^3\text{He}$ as a neutron polarizer and application in polarized neutron diffractometry
Nicholas B. Remmes	2007	Design of the Small Angle Neutron Scattering Instrument at the Indiana University Low Energy Neutron Source: Application to the Study of Nanostructured Materials
Lingyun Yang	2007	Storage Ring Lattice Modeling and its Applications
Fanglei Lin	2007	Towards full preservation of polarization of proton beam in the AGS
Christopher M. Lavelle	2007	Neutronic Performance of the Low Energy Neutron Source (LENS) Target-Moderator-Reflector (TMR) Assembly
Kun Chen	2006	A Study of Spectroscopic, Cold Neutron Radiography
Yoichi Sato	2006	Electron-Proton Dynamics for Long Proton Bunches in High Intensity Proton Rings



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Dazhang Huang	2006	The beam dynamics study across transition energy in a proton synchrotron and the study of the photoinjector for the 4 <sup>th</sup> generation light source
Xiaobiao Huang	2005	Beam Diagnosis and Lattice Modeling of the Fermilab Booster
Shaoheng Wang	2004	A Study on Flat Beam Production in an RF Gun Linac
Michael Gericke	2004	The NPDGamma Experiment. The Weak Interaction Between Nucleons and Parity Violation in Polarized Cold Neutron Capture
Damon Todd	2004	The Production of a Low-Energy Proton Beam as a Source of Torque for a Confined Electron Plasma
Greg Hansen	2004	A Radiometric Measurement of Neutron Flux in a Liquid <sup>4</sup> He Target
Thomas Whitaker	2004	Measurement of $A_z(p)$ , $C_{zz,z}$ , and $C_{y,x} - C_{x,y}$ in d+p Breakup at 270 MeV
Christopher Beltran	2003	Study of the Longitudinal Space Charge Compensation and Longitudinal Instability of the Ferrite inductive Inserts in the Los Alamos Proton Storage Ring
Weiming Guo	2003	Quadrupole mode perturbation in storage rings
Daniel Hussey	2003	Coherent Effects in X-ray and Neutron Reflectometry
Yunkai Zhang	2003	Optical stochastic cooling and electron beam modulation in electron cooling
Sarah Cousineau	2002	Understanding Space Charge and Controlling Beam Loss in High Intensity Synchrotrons
Vahid Ranjbar	2002	Increasing Proton Polarization in AGS and RHIC
Dennis Stoller	2002	Measurements of transverse particle distributions in a cooled proton beam
Christopher Blessinger	2001	Measurement of the parity violating gamma ray asymmetry in polarized neutron capture on <sup>35</sup> Cl, <sup>113</sup> Cd, and <sup>139</sup> La
Todd Bredeweg	2001	Heavy-ion-induced ternary fission as a probe of the dynamical decay of excited nuclei
Brian Davin	2001	Development of LASSA: a large area silicon strip array for nuclear reaction studies and investigation of mid-velocity fragment emission in <sup>114</sup> Cd + <sup>92,98</sup> Mo reactions at E/A = 50 MeV
Zema Chowdhuri	2000	Absolute neutron measurements in neutron decay
Todd Peterson	2000	Development of a Tagged Neutron Facility for Absolute Neutron Scattering Cross Section Measurements
Mei Bai	1999	Overcoming Intrinsic Spin Resonances By Using an RF Dipole
Kehan Jiang	1999	Characterization of the Effective NN Interaction in the Nuclear Medium through <sup>28</sup> Si( $\vec{p}, \vec{p}'$ ) <sup>28</sup> Si Polarization Transfer
Alexander Riabko	1999	Nonlinear beam dynamics with application to space charge dominated beams, double RF systems and quasi-isochronous storage rings



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Dennis Rich	1999	Investigation in the Development and Application of Optically Pumped Polarized $^3\text{He}$ Neutron Spin Filters
Chao Yu	1999	A coincidence measurement of in-plane spin transfer coefficients for back-angle p+p elastic scattering at $t_{\text{inc}} = 200$ MeV
Wilbur Franklin	1998	A Complete Set of In-plane Spin-Transfer Coefficients at 200 MeV
Ethan Hull	1998	Charge collection physics in germanium detectors
Xiaojian Kang	1998	The Cooler Injector Synchrotron at IUCF
Georgios Savopoulos	1998	Polarization Transfer Measurements of the Quasielastic Region on $^3\text{He}$ with the (p,n) Reaction at 200 MeV
Lawrence Warman	1998	Near Threshold Pion Production via $^2\text{H}(p,\pi^0)^3\text{He}$
Alexander Komives	1997	Parity non-conservation in neutron resonances of natural xenon
Keith Stantz	1997	The search for the rare muon decay $\mu^+ \rightarrow e^+\gamma$
David Bracken	1996	Exclusive light-ion-induced multifragmentation studies using the Indiana Silicon Sphere (ISiS)
William DeZarn	1996	Spin Correlation Coefficients In $\bar{p} + \bar{p}$ Elastic Scattering at 197.8 MeV
Todd Hamilton	1996	Multifragmentation of highly excited nuclei
Daniel Carman	1995	Inclusive and Exclusive Quasifree ( $\bar{p},Np$ ) Reaction Studies from $^2\text{H}$ and $^{12}\text{C}$ at 200 MeV
Shining Chang	1995	Investigation of the Effective NN Interaction in Nuclear Medium through $^{10}\text{B}(\bar{p},\bar{p}')^{10}\text{B}$ Polarization Transfer
Michael Ellison	1995	Investigation of Accelerator Physics Issues at the IUCF Cooler
Haixin Huang	1995	Preservation of polarization of proton beam in the AGS with a partial Siberian snake
Derun Li	1995	Cooler Modeling and Longitudinal and Transverse Non-linear Resonances in Synchrotrons
Jian Liu	1995	Investigation of the Effective NN Interaction in the Nuclear Medium Through $^{28}\text{Si}(\bar{p},\bar{p}')^{28}\text{Si}$ Polarization Transfer
Sergei Nagaitsev	1995	Space Charge Dominated Beams in the IUCF Cooler
Adam Smith	1995	Spin Observables for Polarized Proton-Polarized $^3\text{He}$ Elastic and Quasielastic Scattering at 197, 299 and 414 MeV
Mark Spraker	1995	Dissociation of 260-MeV deuterons
Sonya Bowyer	1994	A Coincidence Measurement of $D_{NN}$ for p+p Elastic Scattering at $T_{\text{inc}} = 200$ MeV
Theodore Bowyer	1994	A Technique to Calibrate n-p Elastic Scattering Spin Observables Near 183 MeV
Ping Li	1994	Measurements of Spin Observables in (p,2p) Quasifree Scattering From Very Light Nuclei
Kevin Morley	1994	Multifragmentation and Energy Dissipation in the 1.8-4.8 GeV $^3\text{He} + ^{\text{nat}}\text{Ag}$ , $^{197}\text{Au}$ Reactions



# IUCF Graduate Thesis List 1977–2010

Erin Renshaw	1994	Studies of fragment emission in light-ion-induced nuclear reactions
Steven Wells	1994	Simultaneous Measurements of $(\vec{p}, p'\gamma)$ Observables For the 15.11 MeV, 1+, T=1 State in $^{12}\text{C}$ at 200 MeV
Guangsheng Xu	1994	Study of Radiative Capture of Polarized Neutrons by Polarized Protons at $T_N = 183$ MeV
Brian Raue	1993	Investigations of the Isospin Response of the $^4\text{He}$ Continuum Using the $^4\text{He}(p, p'X)$ Reaction at $T_p = 100$ MeV
Jeffrey Templon	1993	Study of Resonances in the $^{12}\text{C}$ Continuum via the Reactions $^{12}\text{C}(p, p'X)$
Curtis Whiddon	1993	Measurement of the Analyzing Power for Coincident $\vec{n}$ -p Quasifree Scattering from Deuterium, Carbon and Tantalum at 183 MeV
Douglas Fields	1992	Intermediate Mass Fragment Production in Intermediate Energy Nuclear Reactions
Tim Ellison	1991	Electron Cooling
Michiko Minty	1991	Studies of Siberian Snakes and Depolarizing Resonances at the Indiana University Cyclotron Facility
Allena Opper	1991	Measurements of the Spin Observables $D'_{NN}$ and $P$ in Inelastic Proton Scattering from $^{12}\text{C}$ and $^{16}\text{O}$ at 200 MeV
Alex Pei	1991	Cooled RF Stacking Injections in the IUCF Cooler
Matthew Ross	1991	Measurements of the $p+p \rightarrow p+\pi^0$ Cross Section Near Threshold
John Goodwin	1990	An Experimental Test of the Siberian Snake Concept
Weidong Huang	1990	Polarization Transfer Measurements in the $^{19}\text{F}(\vec{p}, \vec{n})^{19}\text{Ne}$ and $^{39}\text{K}(\vec{p}, \vec{n})^{39}\text{Ca}$ Reactions at 120 and 160 MeV
Sherry Yennello	1990	Fragmentation in light-ion-induced nuclear reactions
Quan Chen	1989	Study of 180 MeV proton inelastic scattering from the $^{28}\text{Si}$ and $^{30}\text{Si}$
Salah Aziz	1988	Study of high-spin and three-quasiparticle $(p, \pi)$ transitions on light targets
Daniel Low	1988	Measurement of the $A_{yy}$ tensor analyzing power for the $^1\text{H}(d, pp)n$ reaction in the symmetric constant relative energy geometry
Vernon Cupps	1987	The reaction mechanism for $(d, p)$ reactions at intermediate energies
Elie Korkmaz	1987	Near-threshold proton-induced positive and negative pion production in the carbon region
William Pitts	1987	Radiative capture of tensor polarized deuterons by the hydrogen isotopes
Zong-Jian Cao	1986	Topics in pion production
Mirek Fatyga	1986	Limits to complete fusion and the evolution of nuclear reaction mechanisms in the $E/A = 10\text{-}100$ MeV energy regime



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Moustafa Saber	1984	Processes contributing to the continuum in the inclusive proton spectrum: the role of (p,2p) reaction
Thomas Throwe	1984	Two-nucleon processes in near-threshold ( $\vec{p}$ , $\pi^-$ ) reactions in the carbon and calcium regions
Michael Green	1983	The energy dependence near threshold of proton-induced positive pion production in simple spin systems
Joseph Kehayias	1983	Studies of proton-induced $\pi$ -meson production in atomic nuclei
Mark Pickar	1982	Near-threshold proton-induced neutral pion production from deuterium
John Wiggins	1981	Particle-gamma ray coincidence studies on Ni
Hugon Karwowski	1979	Decay Modes of Heavy Compound Nuclei Formed in $^6\text{Li}$ -Induced Fusion Reaction
Marios Tsangarides	1979	Proton-induced positive and neutral pion production; the stripping model
Carlos Castaneda	1978	Reaction mechanisms for the production of fast $\alpha$ particles in lithium-induced reactions far above the Coulomb barrier
Phillip Pile	1978	Near Theshold Positive Pion Production by Protons on Nuclei
Gary Adams	1977	A study of “particle hole” excitations in the reactions $^{24}\text{Mg}$ , $^{28}\text{Si}$ , $^{40}\text{Ca}(p,p')$ at 80 and 135 MeV
Arunajallum Nadasen	1977	Elastic Scattering of 80-160 MeV Protons from $^{208}\text{Pb}$ , $^{90}\text{Zr}$ , Ca and Si Targets
Michael Sadler	1977	Mechanism of nucleon removal from medium mass nuclei induced by 80-164 MeV protons

