

CURRICULUM VITAE

Michele L. Rosin

ADDRESS:

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PERSONAL:

Maiden name: Michele L. Sumstine
Citizenship: United States

EDUCATION:

- Ph.D. Experimental Particle Physics, (2006) University of Wisconsin, Madison
- M.S. Physics, (2002) University of Wisconsin, Madison
- B.S. Physics, (1999) University of Illinois at Chicago

RESEARCH EXPERIENCE:

- **Post-Doctoral Fellow** (Feb. 2006-present), Weizmann Institute of Science, Rehovot, Israel
Experiment: ZEUS, at DESY, Hamburg, Germany
 - Physics Analysis: Currently studying the properties of D^\pm meson decays in photoproduction using the ZEUS Micro Vertex Detector to tag clean signals by constructing secondary vertices from the long lived $D^\pm \rightarrow K^- \pi^+ \pi^+$ (and corresponding anti-particle) decay channel.
 - Member, Tracking Group: Working with tracking group to understand the signal to background of heavy flavor hadrons using cuts on the decay length significance and implementing constrained fits.
 - Currently responsible for the production and testing of an inclusive photoproduction ntuple intended for general use by all members of ZEUS collaboration interested in photoproduction, including the generation and testing of a common inclusive charm Monte Carlo sample.
 - Shift Leader: Responsible for the safe operation of all detector components and magnets, efficient data taking, and background monitoring
- **Research Assistant** (2002-2006), University of Wisconsin, Madison
Advisor: Prof. Wesley Smith
Experiment: ZEUS, at DESY, Hamburg, Germany
 - Physics Analysis: Measured the mean charged multiplicity as a function of invariant mass in both the lab frame and the Breit frame in neutral current deep inelastic ep scattering and compared to $e+e-$

measurements. Measured the mean charged multiplicity as a function of the center of mass energy in the hadronic center of mass frame.

- Member, Calorimeter Data Quality Management Team: Served as a component expert for the ZEUS Calorimeter and Hadron Electron Separator (HES), responsible for calibrations. Maintenance, troubleshooting, and monitoring data quality.
 - Shift Deputy: Assisted the shift leader in the operation of the detector. Monitored the safety of the experiment, and the quality of the data.
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- **Research Assistant** (2001) University of Wisconsin, Madison
Advisor: Michael Winokur
Polymer Structures Group
 - Deposited polymer thin films onto prepared magnetic oxide substrates.
 - Studied structure of thin films using a Digital Instruments Multimode atomic force microscope.
 - **Visiting Research Assistant** (2000), University of Illinois at Chicago
Advisor: Prof. Mark Adams
 - Assisted with construction and testing of optical connectors for the CMS hadron calorimeter.
 - Set up testing for optical connectors using LabVIEW software.
 - **Undergraduate Research Assistant** (1997-1999), University of Illinois at Chicago
Advisor: Prof. Siva Sivananthan
Microphysics Lab
 - Measured Hall effect for HgCdTe thin films.

TEACHING EXPERIENCE:

- **Teaching Assistant** (2000-2002), University of Wisconsin, Madison
General Physics I and II
 - Taught calculus based undergraduate introductory physics laboratory and recitation sections comprised mainly of engineering students.
 - Responsible for writing and grading quizzes, grading exams, homework, and lab notebooks.
 - Kept twice weekly office hours for individual tutoring
 - Prepared review and study guides
 - Consistently received highest ratings from TA Review Committee based on student evaluations.

COMPUTING SKILLS:

- **Languages:** C++, FORTRAN, Java, HTML, php, and LabVIEW (graphical programming language)
- **Operating Systems:** Linux, MacOS, Windows
- **Applications:** Standard high energy physics analysis software (PAW and ROOT), LaTeX, Microsoft Office suite

AWARDS:

- **Vilas Travel Fellowship**, (2004) UW Madison Graduate Student Council- One of 200 grants awarded to UW Madison science graduate students to cover travel expenses for conference or research.
- **Elizabeth Hirschfelder Award**, (2001) UW Madison- A monetary award given to promising women graduate students for conference attendance and research.
- **Van Vleck Scholarship**, (2001) UW Madison- A scholarship for graduate students with teaching assistantships in the Physics Department
- **Highest Departmental Distinction**, (1999) UIC Physics Department- Distinction in physics awarded to students who achieve college honors and an overall grade point average of 4.8/5.0 in upper division physics and mathematics courses.
- **Larry Abels Award**, (1999) UIC Physics Department- A monetary award presented to the graduating physics senior with the highest grade-point average.
- **Honors Council Award**, (1999) UIC Honors College- A monetary award for honors students for outstanding work on a research project.

PUBLICATIONS:

- on ZEUS author list since 2003 (27 papers)
- “Study of the Energy Dependence of the Mean Charged Multiplicity in Deep Inelastic Scattering with ZEUS at HERA”, Ph.D. Thesis, University of Wisconsin, Madison.
- “Recent Results on Multiplicity from ZEUS”, M. Rosin on behalf of the ZEUS Collaboration, Acta Physica Slovaca, February 2005; 55(1):87:92
- “Correlation of Arsenic Incorporation and its Electrical Activation in MBE HgCdTe”, Lee, T.S., Garland, J., Grein, C.H., Sumstine, M., Jandeska, A., Selamet, Y., Sivananthan, S. Journal of Electronic Materials, June 2000; 29(6):869-72

ZEUS INTERNAL PUBLICATIONS:

- “Study of the dependence of the mean charged multiplicity at HERA” (ZEUS note, in preparation)

CONFERENCE TALKS:

- “Charged Multiplicity Distributions in Deep Inelastic Scattering at HERA”, 13th International Workshop on Deep Inelastic Scattering (DIS05), Madison, Wisconsin, April 2005.
- “Recent Results on Multiplicity”, Hadron Structure 2004, Smolenice, Slovakia, September 2004.
- “Study of Multiplicity and Event Shapes using ZEUS detector at HERA”, 18th International Workshop on High Energy Physics and Quantum Field Theory, St. Petersburg, Russia, June 2004.

- “Variable Temperature Hall Measurements on n- and P- Type Mercury Cadmium Telluride Grown by Molecular Beam Epitaxy”, Centennial Meeting of the American Physical Society, Atlanta, Georgia, March 1999.

PROCEEDINGS:

- “Charged Multiplicity Distributions in Deep Inelastic Scattering at HERA”, M. Rosin on behalf of the ZEUS Collaboration, in Proceedings of the 13th International Workshop on Deep Inelastic Scattering (DIS05), Madison, Wisconsin, April 2005.
- “Recent Results on Multiplicity”, M. Rosin on behalf of the ZEUS Collaboration, in Proceedings of the Hadron Structure 2004 Conference, Smolenice, Slovakia, September 2004.
- “Study of Multiplicity and Event Shapes using ZEUS detector at HERA”, M. Rosin on behalf of the ZEUS Collaboration, in Proceedings of the 18th International Workshop on High Energy Physics and Quantum Field Theory, St. Petersburg, Russia, June 2004.

POSTER PRESENTATIONS:

- “Thin Film Studies of Conducting Polymers on Manganate Oxide Substrates” Michele Sumstine, Robert Carpick, Mark Rzechowski, Lei Wang, Michael Winokur, Fall Meeting of the Materials Research Society, Boston, Massachusetts, November 2001.

REFERENCES:

- Dr. Wesley Smith
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- Dr. Uri Karshon
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