

ECT* Workshop on the Proton Radius Puzzle

October 29 - November 2, 2012 Trento, Italy

Time	Monday Oct. 29	Tuesday Oct. 30	Wednesday Oct. 31	Thursday Nov. 1	Friday Nov. 2
9:00 – 10:30	<p>Randolf Pohl ⁽³⁵⁺¹⁰⁾ <i>(1) Welcome</i> <i>(2) News from μp and μd</i></p> <p>Ronald Gilman ⁽³⁵⁺¹⁰⁾ <i>JLab Experiment E08-007: Proton Electromagnetic Form Factor Ratio at Low Q^2</i></p>	<p>Ingo Sick ⁽³⁵⁺¹⁰⁾ <i>Proton rms-radius and tail of density</i></p> <p>John Arrington ⁽³⁵⁺¹⁰⁾ <i>Extracting the proton radius from low Q^2 electron/muon scattering</i></p>	<p>Andrei Afanasev ⁽³⁵⁺¹⁰⁾ <i>Radiative corrections and two-photon effects for lepton-nucleon scattering</i></p> <p>Judith A. McGovern ⁽³⁵⁺¹⁰⁾ <i>Proton polarisability contribution to the Lamb shift in muonic hydrogen at fourth order in chiral perturbation theory</i></p>	<p>Krzysztof Pachucki ⁽³⁵⁺¹⁰⁾ <i>Directions toward the resolution of the proton charge radius puzzle</i></p> <p>Philippe Brax ⁽³⁵⁺¹⁰⁾ <i>Atomic Precision Tests and Light Scalar Couplings</i></p>	<p>Edith Borie ⁽³⁵⁺¹⁰⁾ <i>Muon-proton Scattering</i></p> <p>Vince Sulkosky ⁽²⁵⁺⁵⁾ <i>Elastic μp Scattering at the Paul Scherrer Institute</i></p>
10:30 – 11:00	<i>coffee break</i>				
11:00 – 12:30	<p>Jan C. Bernauer ⁽³⁵⁺¹⁰⁾ <i>The Mainz high-precision proton form factor measurement I. Overview and results</i></p> <p>Michael O. Distler ⁽³⁵⁺¹⁰⁾ <i>The Mainz high-precision proton form factor measurement II. Basic principles and spin-offs</i></p>	<p>Gil Paz ⁽³⁵⁺¹⁰⁾ <i>Model independent extraction of the proton charge radius from electron scattering</i></p> <p>Keith Griffioen ⁽³⁵⁺¹⁰⁾ <i>How well can a nuclear charge radius be measured with low-Q^2 electron scattering data?</i></p>	<p>Vladimir Pascalutsa ⁽³⁵⁺¹⁰⁾ <i>Nucleon Polarizabilities and Muonic Hydrogen Lamb Shift</i></p> <p>Gerald A. Miller ⁽³⁵⁺¹⁰⁾ <i>Proton Polarizability Contribution: Muonic Hydrogen Lamb Shift and Elastic Scattering</i></p>	<p>Maxim Pospelov ⁽³⁵⁺¹⁰⁾ <i>Extension of the Standard Model by muon-specific forces</i></p> <p>Carl E. Carlson ⁽³⁵⁺¹⁰⁾ <i>New Physics and the Proton Radius Problem</i></p>	<p>Michael I. Eides ⁽³⁵⁺¹⁰⁾ <i>Weak Interaction Contributions in Light Muonic Atoms</i></p> <p>Andrea Vacchi ⁽²⁵⁺⁵⁾ <i>1S hyperfine splitting in muonic hydrogen</i></p>
12:30 – 14:30	<i>lunch break</i>				
14:30 – 16:00	<p>Stefan Krieg ⁽³⁵⁺¹⁰⁾ <i>lattice QCD</i></p> <p>Itay Yavin ⁽³⁵⁺¹⁰⁾ <i>Muonic hydrogen and MeV forces</i></p>	<p>Michael C. Birse ⁽³⁵⁺¹⁰⁾ <i>Issues with determining the proton radius from elastic electron scattering</i></p> <p>Ina T. Lorenz ⁽³⁵⁺¹⁰⁾ <i>The size of the proton - closing in on the radius puzzle</i></p>	<p>Mikhail Gorchtein ⁽³⁵⁺¹⁰⁾ <i>Hadronic contributions to Lamb shift in muonic deuterium</i></p> <p>Sophie S. Schlessler ⁽³⁵⁺¹⁰⁾ <i>Nuclear polarizability contribution to the Lamb shift in muonic helium</i></p>	<p>Richard J. Hill ⁽³⁵⁺¹⁰⁾ <i>Model independent analysis of proton structure for hydrogenic bound states</i></p> <p>Axel Beyer ⁽³⁵⁺¹⁰⁾ <i>Atomic Hydrogen $2S$-nP Transitions and the Proton Size</i></p>	
16:00 – 16:30	<i>coffee break</i>				
16:30 – 18:00	<p>Eric A. Hessels ⁽²⁵⁺⁵⁾ <i>Progress towards a new separated-oscillatory-field microwave measurement of the atomic hydrogen $n=2$ Lamb shift</i></p> <p>Kjeld S.E. Eikema ⁽²⁵⁺⁵⁾ <i>XUV frequency comb spectroscopy of helium and helium⁺ ions</i></p> <p>Nicholas D. Guise ⁽²⁵⁺⁵⁾ <i>Towards One-electron Ions in Rydberg States for a Rydberg Constant Determination Independent of the Proton Radius</i></p>	<p>Jonathan D. Carroll ⁽³⁵⁺¹⁰⁾ <i>Non-perturbative QED spectrum of Muonic Hydrogen</i></p> <p>Paul Indelicato ⁽³⁵⁺¹⁰⁾ <i>Muonic hydrogen theory</i></p>	<p>Michael Kohl ⁽²⁵⁺⁵⁾ <i>The OLYMPUS experiment at DESY</i></p> <p>Brian Raue ⁽²⁵⁺⁵⁾ <i>Hall B 2-gamma experiment</i></p>	<p>Ashot Gasparian ⁽²⁵⁺⁵⁾ <i>A Novel High Precision Measurement of the Proton Charge Radius via ep Scattering Method</i></p> <p>Karl J. Slifer ⁽²⁵⁺⁵⁾ <i>The Jefferson Lab g_2^p Experiment</i></p> <p>Dmitry A. Solovyev ⁽²⁵⁺⁵⁾ <i>Multiphoton processes in atomic physics and astrophysics</i></p>	