Journal Club Topics and Papers

- Use of Form factors parametrizations vs. microscopic theory:
 - Hadron Structure in the description of electromagnetic reactions, J.H. Koch, V. Pascalutsa, S. Scherer, PRC 65, 045202 (2002).
 - Use of form factors in electromagnetic interactions, H.W. Naus and J.H. Koch, **PRC 39**, No 5, 1907 (1989).
- Connection between T_{20} and G_E :
 - Neutron charge form factor at large q², R. Schiavilla and I. Sick, **PRC 64**, 041002(R), (2001).
 - Extraction of the neutron charge form factor G_E^n from the charge form factor of deuteron G_C^d , A. Krutov and V. Troitsky, **EPJ A16**, 285-290 (2003).
- Connection between G_E and $N \to \Delta$:
 - Electromagnetic properties of the Delta(1232), A. Buchmann et al., PRC 55, 448, (1997).
 - Moments of the neutron charge form factor and the N-Delta quadrupole transition, P. Grabmayr and A. Buchmann, **PRL 86**, 2237, (2001).
- Extracting the Ge/Gm form factor ratio on the proton:
 - How to reconcile the Rosenbluth and polarization transfer methods ..., P.A.M. Guichon and M. Vanderhagen, PRL 91, 142303, (2003).
 - Two-photon exchange and elastic electron-proton scattering, P.G. Blunden et al, **PRL 91**, 142304, (2003).
 - Evidence of two photon exchange contributions in electron-proton ..., J. Arrington, **PRC 69**, 032201, (2004).
 - Implications of the discrepancy between proton form factor ratio measurement, J. Arrington, **PRC 69**, 022201, (2004).
- Experimental extraction of the Ge/Gm form factor ratio on the proton:
 - Measurements of electron-proton elastic cross sections, M.E. Christy, nucl-ex/0401030
 - Measurement of Ge/Gm, O. Gayou et al., PRL 88, 092301, (2002).
 - BLAST measurement and extraction of Ge/Gm
- Relativity and interpretation of form factors as charge/magnetism distributions:
 - Nucleon charge and magnetization densities from Sachs form factors, J. Kelly, PRC 66, 065203 (2002).
 - Interpreting the Neutron's Electric Form Factor: Rest Frame Charge Distribution of Foldy Term
 N. Isgur, PRL 83, No 2, 272 (1999).

Journal Club Topics and Papers

- Pion cloud interpretation of nucleon form factor data:
 - A coherent interpretation of the Form Factors of the Nucleon ..., J. Friedrich and Th. Walcher,
 EPJ A17, 607 (2003).
 - The electric from factor of the neutron and its chiral content, M. Kaskulov and P. Grabmayr, **EPJ A19**, 157 (2004).
- Pion cloud and the $N \to \Delta$ transition:
 - A unitary Isobar model for Pion photo- and electroproduction on the proton, D. Drechsel et al, NPA 645, 145 (1999).
 - Dynamical study of the Delta excitation, T. Sato and T.H. Lee, PRC 63, 055201 (2001).
 - Pion Cloud and the Q² dependence of the N-Delta transition, S. Kamalov, **PRL 83**, 4494, (1999).
- Deuteron properties:
 - Static and low energy properties
 - Electro-magnetic structure
 - Tensor forces

• Other topics

- Electromagnetic polarizabilities of the nucleon
- GDH and spin polarizabilities of the nucleon
- The pion form factor and polarizability
- Chiral extrapolation of lattice results
- Comparing Form Factors and Parton Distribution Functions in the GPD limit
- Parity violation and strange nucleon structure
- Form factors in the time-like and space-like regions
- Radiative effects in spin-dependent inelastic scattering
- Complete experiments