

Physics Division Published Journal Articles, July-December 2007

Quantum Monte Carlo Calculations of Neutron α Scattering

Kenneth M. Nollett, Steven C. Pieper, R. B. Wiringa, J. Carlson, and G. M. Hale
Phys. Rev. Lett. **99**, 022502/1-4 (2007)

Single-Neutron States in ^{101}Sn

D. Seweryniak, M. P. Carpenter, S. Gros, A. A. Hecht, N. Hoteling, R. V. F. Janssens, T. L. Khoo, T. Lauritsen, C. J. Lister, G. Lotay, D. Peterson, A. P. Robinson, W. B. Walters, X. Wang, P. J. Woods, and S. Zhu
Phys. Rev. Lett. **99**, 022504/1-4 (2007)

High Resolution Spectroscopy of ^{12}B by Electroproduction

M. Iodice *et al.* (Jefferson Lab Hall A Collaboration)
Phys. Rev. Lett. **99**, 052501/1-5 (2007)

A New Determination of the Astrophysical S Factor S_{E1} of the $^{12}\text{C}(\alpha,\gamma)^{16}\text{O}$ Reaction

X. D. Tang, K. E. Rehm, I. Ahmad, C. R. Brune, A. Champagne, J. P. Greene, A. A. Hecht, D. Henderson, R. V. F. Janssens, C. L. Jiang, L. Jisonna, D. Kahl, E. F. Moore, M. Notani, R. C. Pardo, N. Patel, M. Paul, G. Savard, J. P. Schiffer, R. E. Segel, S. Sinha, B. Shumard, and A. H. Wuosmaa
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Investigation of Proton-Proton Short-Range Correlations via the $^{12}\text{C}(e,e'pp)$ Reaction

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Measurement of Angular Distributions of Drell-Yan Dimuons in $p + d$ Interactions at 800 GeV/ c

L. Y. Zhu *et al.* (FNAL E866/NuSea Collaboration)
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n - p Pairing, Wigner Energy, and Shell Gaps

R. R. Chasman
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Effect of a Triaxial Nuclear Shape on Proton Tunneling: the Decay and Structure of ^{145}Tm

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From Chiral Vibration to Static Chirality in ^{135}Nd

S. Mukhopadhyay, D. Almeded, U. Garg, S. Frauendorf, T. Li, P. V. Madhusudhana Rao, X. Wang, S. S. Ghugre, M. P. Carpenter, S. Gros, A. Hecht, R. V. F. Janssens, F. G. Kondev, T. Lauritsen, D. Seweryniak, and S. Zhu
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Measurements of the Proton Elastic-Form-Factor Ratio $\mu_p G_E^p/G_M^p$ at Low Momentum Transfer

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Deeply Virtual Compton Scattering Off the Neutron

M. Mazouz *et al.* (Jefferson Lab Hall A Collaboration)
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B. Clasio *et al.*
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Nuclear Charge Radius of ^8He

P. Mueller, I. A. Sulai, A. C. C. Villari, J. A. Alcántara-Núñez, R. Alves-Condé, K. Bailey, G. W. F. Drake, M. Dubois, C. Eléon, G. Gaubert, R. J. Holt, R. V. F. Janssens, N. Lemesne, Z.-T. Lu, T. P. O'Connor, M.-G. Saint-Laurent, J.-C. Thomas, and L.-B. Wang
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Level Structure of ^{92}Rh : Implications for Two-Proton Decay of $^{94}\text{Ag}^m$

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Q^2 Dependence of the $S_{11}(1535)$ Photocoupling and Evidence for a P -Wave Resonance in η Electroproduction

H. Denizli *et al.* (CLAS Collaboration)
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Charge Radius and Dipole Response of ^{11}Li

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Cascade Production in the Reactions $\gamma p \rightarrow K^+ K^+(X)$ and $\gamma p \rightarrow K^+ K^+ \pi^-(X)$

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Precise-Determination of Low-Q Nucleon Electromagnetic Form Factors and Their Impact on Parity-Violating e - p Elastic Scattering

John Arrington and Ingo Sick
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K. Hicks *et al.* (LEPS Collaboration)
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Decay Strength Distributions in $^{12}\text{C}(^{12}\text{C},\gamma)$ Radiative Capture

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Flavor Symmetry Breaking and Meson Masses

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Identification of a High-Spin Isomer in ^{99}Mo

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First Measurement of Coherent ϕ -Meson Photoproduction on Deuteron at Low Energies

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Quasifree Λ , Σ^0 , and Σ^- Electroproduction from $^1,^2\text{H}$, $^3,^4\text{He}$, and Carbon

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Dynamical Coupled-Channel Model of π N Scattering in the $W \leq 2$ -GeV Nucleon Resonance Region

B. Juliá-Díaz, T.-S. Lee, A. Matsuyama, and T. Sato
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Quantum Monte Carlo Calculations of Electroweak Transition Matrix Elements in $A = 6,7$ Nuclei

Muslema Pervin, Steven C. Pieper, and R. B. Wiringa
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B -Meson to Light-Meson Transition Form Factors

Mikhail A. Ivanov, Jürgen G. Körner, Sergey G. Kovalenko, and Craig D. Roberts
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A. Airapetian *et al.* (The HERMES Collaboration)
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Hadronization in Semi-Inclusive Deep-Inelastic Scattering on Nuclei

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Ion Generation from a Solidified Ne Target for a Laser Ion Source

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Polarized Hyperons Probe Dynamics of Quark Spin

Daniel S. Carman, T.-S. Harry Lee, Mac Mestayer, and Reinhard Schumacher
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Testing the Elements of the Big Bang

Kenneth Nollett
Physics World **20**, 20 (2007)