PHYSICAL REVIEW C

For editorial and subscription correspondence, please see inside front cover
(ISSN: 0556-2813)

PERIODICALS
Postmaster send address changes to:
American Institute of Physics
Suite 1NO1
2 Huntington Quadrangle
Melville, NY 11747-4502

THIRD SERIES, VOLUME 69, NUMBER 4 ***CONTENTS*** **APRIL 2004**

RAPID COMMUNICATIONS

Unmasking the nuclear matter equation of state *(5 pages)* . . . . . 041301(R)
J. Piekarewicz

Parity inversion and breakdown of shell closure in Be isotopes *(5 pages)* . . . . . 041302(R)
G. Gori, F. Barranco, E. Vigezzi, and R. A. Broglia

Decay-out from low-lying superdeformed bands in Pb isotopes: Tunneling widths in a two-level mixing model *(5 pages)* . . . . . 041303(R)
A. N. Wilson and P. M. Davidson

Trinucleon cluster structures in ^{6}Li *(4 pages)* . . . . . 041304(R)
S. Nakayama, T. Yamagata, H. Akimune, M. Fujiwara, K. Fushimi, M. B. Greenfield, K. Hara, K. Y. Hara, H. Hashimoto, K. Ichihara, K. Kawase, H. Matsui, K. Nakanishi, M. Sakama, M. Tanaka, and M. Yosoi

Ternary fission of ^{252}Cf: 3368 keV γ radiation from ^{10}Be fragments *(4 pages)* . . . . . 041305(R)
A. V. Daniel, G. M. Ter-Akopian, J. H. Hamilton, A. V. Ramayya, J. Kormicki, G. S. Popeko, A. S. Fomichev, A. M. Rodin, Yu. Ts. Oganessian, J. D. Cole, J. K. Hwang, Y. X. Luo, D. Fong, P. Gore, M. Jandel, J. Kliman, L. Krupa, J. O. Rasmussen, S. C. Wu, I. Y. Lee, M. A. Stoyer, R. Donangelo, and W. Greiner

Dominance of low-ℓ component in weakly bound deformed single-neutron orbits *(4 pages)* . . . . . 041306(R)
Ikuko Hamamoto

Fixed spin and parity nuclear level density for restricted shell model configurations *(4 pages)* . . . . . 041307(R)
Mihai Horoi, Monica Ghita, and Vladimir Zelevinsky



Copyright 2004 by The American Physical Society

(Continued)



THIRD SERIES, VOLUME , NUMBER

Hyperon photoproduction in the nucleon resonance region *(5 pages)* . . . . . 042201(R)
J. W. C. McNabb, R. A. Schumacher, L. Todor, G. Adams, E. Anciant, M. Anghinolfi, B. Asavapibhop, G. Audit, T. Auger, H. Avakian, H. Bagdasaryan, J. P. Ball, S. Barrow, M. Battaglieri, K. Beard, M. Bektasoglu, M. Bellis, B. L. Berman, N. Bianchi, A. S. Biselli, S. Boiarinov, B. E. Bonner, S. Bouchigny, R. Bradford, D. Branford, W. J. Briscoe, W. K. Brooks, V. D. Burkert, C. Butuceanu, J. R. Calarco, D. S. Carman, B. Carnahan, C. Cetina, L. Ciciani, P. L. Cole, A. Coleman, A. D. Cords, P. Corvisiero, D. Crabb, H. Crannell, J. P. Cummings, E. De Sanctis, R. DeVita, P. V. Degtyarenko, H. Denizli, L. Dennis, K. V Dharmawardane, K. S. Dhuga, C. Djalali, G. E. Dodge, D. Doughty, P. Dragovitsch, M. Dugger, S. Dytman, M. Eckhause, H. Egiyan, K. S. Egiyan, L. Elouadrhiri, A. Empl, P. Eugenio, R. Fatemi, R. J. Feuerbach, J. Ficenec, T. A. Forest, H. Funsten, S. J. Gaff, G. Gavalian, S. Gilad, G. P. Gilfoyle, K. L. Giovanetti, P. Girard, C. I. O. Gordon, K. Griffioen, M. Guidal, M. Guillo, L. Guo, V. Gyurjyan, C. Hadjidakis, R. Hakobyan, J. Hardie, D. Heddle, P. Heimberg, F. W. Hersman, K. Hicks, R. S. Hicks, M. Holtrop, J. Hu, C. E. Hyde-Wright, Y. Ilieva, M. M. Ito, D. Jenkins, K. Joo, J. H. Kelley, M. Khandaker, K. Y. Kim, K. Kim, W. Kim, A. Klein, F. J. Klein, A. V. Klimenko, M. Klusman, M. Kossov, L. H. Kramer, Y. Kuang, S. E. Kuhn, J. Lachniet, J. M. Laget, D. Lawrence, Ji Li, K. Lukashin, J. J. Manak, C. Marchand, S. McAleer, J. McCarthy, B. A. Mecking, S. Mehrabyan, J. J. Melone, M. D. Mestayer, C. A. Meyer, K. Mikhailov, R. Minehart, M. Mirazita, R. Miskimen, L. Morand, S. A. Morrow, V. Muccifora, J. Mueller, G. S. Mutchler, J. Napolitano, R. Nasseripour, S. O. Nelson, S. Niccolai, G. Niculescu, I. Niculescu, B. B. Niczyporuk, R. A. Niyazov, M. Nozar, J. T. O'Brien, G. V. O'Rielly, M. Osipenko, K. Park, E. Pasyuk, G. Peterson, S. A. Philips, N. Pivnyuk, D. Pocanic, O. Pogorelko, E. Polli, S. Pozdniakov, B. M. Preedom, J. W. Price, Y. Prok, D. Protopopescu, L. M. Qin, B. P. Quinn, B. A. Raue, G. Riccardi, G. Ricco, M. Ripani, B. G. Ritchie, F. Ronchetti, P. Rossi, D. Rowntree, P. D. Rubin, F. Sabatié, K. Sabourov, C. Salgado, J. P. Santoro, V. Sapunenko, V. S. Serov, A. Shafi, Y. G. Sharabian, J. Shaw, S. Simionatto, A. V. Skabelin, E. S. Smith, L. C. Smith, D. I. Sober, M. Spraker, A. Stavinsky, S. Stepanyan, P. Stoler, I. I. Strakovsky, S. Strauch, M. Taiuti, S. Taylor, D. J. Tedeschi, U. Thoma, R. Thompson, C. Tur, M. Ungaro, M. F. Vineyard, A. V. Vlassov, K. Wang, L. B. Weinstein, A. Weisberg, H. Weller, D. P. Weygand, C. S. Whisnant, E. Wolin, M. H. Wood, A. Yegneswaran, J. Yun, B. Zhang, J. Zhao, and Z. Zhou
(CLAS Collaboration)

Reaction $K^- p \to \pi^0 \pi^0 \Lambda$ from p_{K^-}=514 to 750 MeV/c *(4 pages)* . . . . . 042202(R)
S. Prakhov, B. M. K. Nefkens, C. E. Allgower, V. Bekrenev, W. J. Briscoe, M. Clajus, J. R. Comfort, K. Craig, D. Grosnick, D. Isenhower, N. Knecht, D. Koetke, A. Koulbardis, N. Kozlenko, S. Kruglov, G. Lolos, I. Lopatin, D. M. Manley, R. Manweiler, A. Marušić, S. McDonald, J. Olmsted, Z. Papandreou, D. Peaslee, N. Phaisangittisakul, J. W. Price, A. F. Ramirez, M. Sadler, A. Shafi, H. Spinka, T. D. S. Stanislaus, A. Starostin, H. M. Staudenmaier, I. Supek, and W. B. Tippens
(Crystal Ball Collaboration)

ARTICLES

Nucleon-Nucleon Interaction, Few-Body Systems

Longitudinal electron scattering response functions of ^{3}H and ^{3}He *(10 pages)* 044001
Victor D. Efros, Winfried Leidemann, Giuseppina Orlandini, and Edward L. Tomusiak

Two-body photodisintegration of ^{4}He with full final state interaction *(8 pages)* 044002
Sofia Quaglioni, Winfried Leidemann, Giuseppina Orlandini, Nir Barnea, and Victor D. Efros

Generalization of the Numerov method for solution of *Nd* breakup problem in configuration space *(10 pages)* 044003
V. M. Suslov and B. Vlahovic

(Continued)

THIRD SERIES, VOLUME , NUMBER

Relation between the deuteron form factor at high momentum transfer and the high energy neutron-proton scattering amplitude *(7 pages)* 044004
Gerald A. Miller and Mark Strikman

Wave function for no-core effective interaction approaches *(10 pages)* 044005
Oded Mintkevich and Nir Barnea

Nuclear Structure

$\Lambda\Lambda$-ΞN-$\Sigma\Sigma$ coupling in ${}^{6}_{\Lambda\Lambda}$He with the Nijmegen soft-core potentials *(7 pages)* 044301
Taiichi Yamada

Gyromagnetic ratios and octupole collectivity in the structure of the $^{90-96}$Zr isotopes *(9 pages)* 044302
A. E. Stuchbery, N. Benczer-Koller, G. Kumbartzki, and T. J. Mertzimekis

In search of collectivity in ^{95,97}Mo nuclei *(10 pages)* 044303
J. M. Chatterjee, M. Saha-Sarkar, S. Bhattacharya, S. Sarkar, R. P. Singh, S. Murulithar, and R. K. Bhowmik

Deformation effects in ^{185}Au *(5 pages)* 044304
P. Joshi, A Kumar, I. M. Govil, R. P. Singh, G. Mukherjee, S. Muralithar, R. K. Bhowmik, and U. Garg

First observation of the β decay of neutron-rich ^{218}Bi by the pulsed-release technique and resonant laser ionization *(6 pages)* 044305
H. De Witte, A. N. Andreyev, I. N. Borzov, E. Caurier, J. Cederkäll, A. De Smet, S. Eeckhaudt, D. V. Fedorov, V. N. Fedosseev, S. Franchoo, M. Górska, H. Grawe, G. Huber, M. Huyse, Z. Janas, U. Köster, W. Kurcewicz, J. Kurpeta, A. Płochocki, K. Van de Vel, P. Van Duppen, and L. Weissman

Shell-model description of monopole shift in neutron-rich Cu *(8 pages)* 044306
N. A. Smirnova, A. De Maesschalck, A. Van Dyck, and K. Heyde

Consequences of wall stiffness for a β-soft potential *(8 pages)* 044307
M. A. Caprio

Relativistic random-phase approximation calculation with negative energy states of nuclear polarization in muonic atoms *(11 pages)* 044308
Akihiro Haga, Yataro Horikawa, Yasutoshi Tanaka, and Hiroshi Toki

Gross shell structure at high spin in heavy nuclei *(21 pages)* 044309
M. A. Deleplanque, S. Frauendorf, V. V. Pashkevich, S. Y. Chu, and A. Unzhakova

0^+ states in deformed actinide nuclei by the (p,t) reaction *(13 pages)* 044310
H.-F. Wirth, G. Graw, S. Christen, D. Cutoiu, Y. Eisermann, C. Günther, R. Hertenberger, J. Jolie, A. I. Levon, O. Möller, G. Thiamova, P. Thirolf, D. Tonev, and N. V. Zamfir

Strong interaction and $E2$ effect in even-A antiprotonic Te atoms *(11 pages)* 044311
B. Kłos, S. Wycech, A. Trzcińska, J. Jastrzębski, T. Czosnyka, M. Kisieliński, P. Lubiński, P. Napiorkowski, L. Pieńkowski, F. J. Hartmann, B. Ketzer, R. Schmidt, T. von Egidy, J. Cugnon, K. Gulda, W. Kurcewicz, and E. Widmann

A microscopic study of the proton-neutron symmetry and phonon structure of the low-lying states in ^{92}Zr *(6 pages)* 044312
N. Lo Iudice and Ch. Stoyanov

(Continued)

PHYSICAL REVIEW C **THIRD SERIES, VOLUME 69, NUMBER 4** **APRIL 2004**

Excitations of the α cluster in $A=6$ and 7 nuclei *(8 pages)* 044313
T. Yamagata, S. Nakayama, H. Akimune, M. Fujiwara, K. Fushimi, M. B. Greenfield, K. Hara, K. Y. Hara, H. Hashimoto, K. Ichihara, K. Kawase, M. Kinoshita, Y. Matsui, K. Nakanishi, M. Tanaka, H. Utsunomiya, and M. Yosoi

New yrast energy formula for soft rotors *(4 pages)* 044314
P. von Brentano, N. V. Zamfir, R. F. Casten, W. G. Rellergert, and E. A. McCutchan

Superheavy nuclei in a relativistic effective Lagrangian model *(11 pages)* 044315
Tapas Sil, S. K. Patra, B. K. Sharma, M. Centelles, and X. Viñas

Sequence of potentials interpolating between the U(5) and E(5) symmetries *(12 pages)* 044316
Dennis Bonatsos, D. Lenis, N. Minkov, P. P. Raychev, and P. A. Terziev

Observation of magnetic rotation in odd-odd ^{104}Ag *(11 pages)* 044317
P. Datta, S. Chattopadhyay, P. Banerjee, S. Bhattacharya, B. Dasmahapatra, T. K. Ghosh, A. Goswami, S. Pal, M. Saha Sarkar, S. Sen, H. C. Jain, P. K. Joshi, and Amita

Evidence for α clustering in heavy and superheavy nuclei *(19 pages)* 044318
D. S. Delion, A. Sandulescu, and W. Greiner

Deformed-basis antisymmetrized molecular dynamics and its application to ^{20}Ne *(12 pages)* 044319
Masaaki Kimura

Sets of rotation-aligned bands indicating nonaxiality in ^{190}Au *(11 pages)* 044320
E. Gueorguieva, C. Schück, A. Minkova, Ch. Vieu, M. Kaci, F. Hannachi, R. Wyss, J. S. Dionisio, A. Korichi, and A. Lopez-Martens

Superscaling in nuclei: A search for a scaling function beyond the relativistic Fermi gas model *(7 pages)* 044321
A. N. Antonov, M. K. Gaidarov, D. N. Kadrev, M. V. Ivanov, E. Moya de Guerra, and J. M. Udias

Nuclear Reactions

Possibilities of synthesis of new superheavy nuclei in actinide-based fusion reactions *(5 pages)* 044601
G. G. Adamian, N. V. Antonenko, and W. Scheid

Polarization transfer and spin response functions of the ^{2}H$(\vec{p},\vec{n})$ reaction at 345 MeV *(7 pages)* 044602
T. Wakasa, H. Sakai, M. Ichimura, K. Hatanaka, M. B. Greenfield, M. Hatano, J. Kamiya, H. Kato, Y. Maeda, H. Okamura, T. Ohnishi, H. Otsu, K. Sekiguchi, K. Suda, A. Tamii, T. Uesaka, T. Yagita, and K. Yako

One-neutron removal reactions on light neutron-rich nuclei *(30 pages)* 044603
E. Sauvan, F. Carstoiu, N. A. Orr, J. S. Winfield, M. Freer, J. C. Angélique, W. N. Catford, N. M. Clarke, N. Curtis, S. Grévy, C. Le Brun, M. Lewitowicz, E. Liégard, F. M. Marqués, M. Mac Cormick, P. Roussel-Chomaz, M.-G. Saint Laurent, and M. Shawcross

Search for temperature and N/Z dependent effects in the decay of $A=98$ compound nuclei *(8 pages)* 044604
S. Moretto, D. Fabris, M. Lunardon, S. Pesente, V. Rizzi, G. Viesti, M. Barbui, M. Cinausero, E. Fioretto, G. Prete, A. Brondi, E. Vardaci, F. Lucarelli, A. Azhari, X. D. Tang, K. Hagel, Y. Ma, A. Makeev, M. Murray, J. B. Natowitz, L. Qin, P. Smith, L. Trache, R. E. Tribble, R. Wada, and J. Wang

Microscopic calculation of the interaction cross section for stable and unstable nuclei based on the nonrelativistic nucleon-nucleon t matrix *(12 pages)* 044605
Dao T. Khoa, Hoang Sy Than, Tran Hoai Nam, Marcella Grasso, and Nguyen Van Giai

THIRD SERIES, VOLUME , NUMBER

Survey of charge symmetry breaking operators for $dd \to \alpha\pi^0$ *(16 pages)* 044606
A. Gårdestig, C. J. Horowitz, A. Nogga, A. C. Fonseca, C. Hanhart, G. A. Miller, J. A. Niskanen, and U. van Kolck

Isoscaling studies of fission: A sensitive probe into the dynamics of scission *(6 pages)* 044607
M. Veselsky, G. A. Souliotis, and M. Jandel

Existence of a nonlocality in the nucleon-^{16}O optical potential and its physical origin *(6 pages)* 044608
George H. Rawitscher and D. Lukaszek

Connection between the largest Lyapunov exponent, density fluctuation, and multifragmentation in excited nuclear systems *(8 pages)* 044609
Yingxun Zhang, Xizhen Wu, and Zhuxia Li

Reaction dynamics and multifragmentation in Fermi energy heavy ion reactions *(27 pages)* 044610
R. Wada, T. Keutgen, K. Hagel, Y. G. Ma, J. Wang, M. Murray, L. Qin, P. Smith, J. B. Natowitz, R. Alfarro, J. Cibor, M. Cinausero, Y. El Masri, D. Fabris, E. Fioretto, A. Keksis, S. Kowalski, M. Lunardon, A. Makeev, N. Marie, E. Martin, Z. Majka, A. Martinez-Davalos, A. Menchaca-Rocha, G. Nebbia, G. Prete, V. Rizzi, A. Ruangma, D. V. Shetty, G. Souliotis, P. Staszel, M. Veselsky, G. Viesti, E. M. Winchester, S. J. Yennello, W. Zipper, and A. Ono (NIMROD Collaboration)

Neutron-skin effect in the nuclear reactions ^{58}Ni + ^{122}Sn and ^{64}Ni + ^{116}Sn around 6 MeV/nucleon *(12 pages)* 044611
V. Roberfroid, Y. El Masri, J. Cabrera, Th. Keutgen, L. Lebreton, I. Tilquin, C. Dufauquez, A. Ninane, J. Van Mol, R. Régimbart, R. J. Charity, and J. B. Natowitz

Elastic scattering and fusion of ^{9}Be + ^{208}Pb: Density function dependence of the double folding renormalization *(7 pages)* 044612
R. J. Woolliscroft, B. R. Fulton, R. L. Cowin, M. Dasgupta, D. J. Hinde, C. R. Morton, and A. C. Berriman

Reactions induced by the halo nucleus ^{6}He at energies around the Coulomb barrier *(9 pages)* 044613
A. Di Pietro, P. Figuera, F. Amorini, C. Angulo, G. Cardella, S. Cherubini, T. Davinson, D. Leanza, J. Lu, H. Mahmud, M. Milin, A. Musumarra, A. Ninane, M. Papa, M. G. Pellegriti, R. Raabe, F. Rizzo, C. Ruiz, A. C. Shotter, N. Soić, S. Tudisco, and L. Weissman

Relativistic Nuclear Collisions

Shear viscosity coefficient from microscopic models *(7 pages)* 044901
Azwinndini Muronga

Why a long-lived fireball can be compatible with Hanbury-Brown–Twiss measurements *(8 pages)* 044902
Thorsten Renk

Energy dependence of transverse mass spectra of kaons produced in $p+p$ and $p+\bar{p}$ interactions: A compilation *(7 pages)* 044903
Michael Kliemant, Benjamin Lungwitz, and Marek Gaździcki

Universal transition curve in pseudorapidity distribution *(12 pages)* 044904
Sangyong Jeon, Vasile Topor Pop, and Marcus Bleicher

Hadronic Physics and QCD

Spin-orbital structure of the nucleon magnetic moment *(4 pages)* 045201
Xiang-Song Chen, Di Qing, Wei-Min Sun, Hong-Shi Zong, and Fan Wang

(Continued)

THIRD SERIES, VOLUME , NUMBER

Measurement of $\pi^- p \to \pi^0 \pi^0 n$ from threshold to $p_{\pi^-} = 750$ MeV/c *(15 pages)* 045202

S. Prakhov, B. M. K. Nefkens, C. E. Allgower, V. Bekrenev, W. J. Briscoe, M. Clajus, J. R. Comfort, K. Craig, D. Grosnick, D. Isenhower, N. Knecht, D. Koetke, A. Koulbardis, N. Kozlenko, S. Kruglov, G. Lolos, I. Lopatin, D. M. Manley, R. Manweiler, A. Marušić, S. McDonald, J. Olmsted, Z. Papandreou, D. Peaslee, N. Phaisangittisakul, J. W. Price, A. F. Ramirez, M. Sadler, A. Shafi, H. Spinka, T. D. S. Stanislaus, A. Starostin, H. M. Staudenmaier, I. Supek, and W. B. Tippens (Crystal Ball Collaboration)

Backward electroproduction of π^0 mesons on protons in the region of nucleon resonances at four momentum transfer squared $Q^2 = 1.0$ GeV^2 *(15 pages)* 045203

G. Laveissière, N. Degrande, S. Jaminion, C. Jutier, L. Todor, R. Di Salvo, L. Van Hoorebeke, L. C. Alexa, B. D. Anderson, K. A. Aniol, K. Arundell, G. Audit, L. Auerbach, F. T. Baker, M. Baylac, J. Berthot, P. Y. Bertin, W. Bertozzi, L. Bimbot, W. U. Boeglin, E. J. Brash, V. Breton, H. Breuer, E. Burtin, J. R. Calarco, L. S. Cardman, C. Cavata, C.-C. Chang, J.-P. Chen, E. Chudakov, E. Cisbani, D. S. Dale, C. W. de Jager, R. De Leo, A. Deur, N. d'Hose, G. E. Dodge, J. J. Domingo, L. Elouadrhiri, M. B. Epstein, L. A. Ewell, J. M. Finn, K. G. Fissum, H. Fonvieille, G. Fournier, B. Frois, S. Frullani, C. Furget, H. Gao, J. Gao, F. Garibaldi, A. Gasparian, S. Gilad, R. Gilman, A. Glamazdin, C. Glashausser, J. Gomez, V. Gorbenko, P. Grenier, P. A. M. Guichon, J. O. Hansen, R. Holmes, M. Holtrop, C. Howell, G. M. Huber, C. E. Hyde-Wright, S. Incerti, M. Iodice, J. Jardillier, M. K. Jones, W. Kahl, S. Kamalov, S. Kato, A. T. Katramatou, J. J. Kelly, S. Kerhoas, A. Ketikyan, M. Khayat, K. Kino, S. Kox, L. H. Kramer, K. S. Kumar, G. Kumbartzki, M. Kuss, A. Leone, J. J. LeRose, M. Liang, R. A. Lindgren, N. Liyanage, G. J. Lolos, R. W. Lourie, R. Madey, K. Maeda, S. Malov, D. M. Manley, C. Marchand, D. Marchand, D. J. Margaziotis, P. Markowitz, J. Marroncle, J. Martino, K. McCormick, J. McIntyre, S. Mehrabyan, F. Merchez, Z. E. Meziani, R. Michaels, G. W. Miller, J. Y. Mougey, S. K. Nanda, D. Neyret, E. A. J. M. Offermann, Z. Papandreou, C. F. Perdrisat, R. Perrino, G. G. Petratos, S. Platchkov, R. Pomatsalyuk, D. L. Prout, V. A. Punjabi, T. Pussieux, G. Quémenér, R. D. Ransome, O. Ravel, J. S. Real, F. Renard, Y. Roblin, D. Rowntree, G. Rutledge, P. M. Rutt, A. Saha, T. Saito, A. J. Sarty, A. Serdarevic, T. Smith, G. Smirnov, K. Soldi, P. Sorokin, P. A. Souder, R. Suleiman, J. A. Templon, T. Terasawa, L. Tiator, R. Tieulent, E. Tomasi-Gustaffson, H. Tsubota, H. Ueno, P. E. Ulmer, G. M. Urciuoli, R. Van De Vyver, R. L. J. Van der Meer, P. Vernin, B. Vlahovic, H. Voskanyan, E. Voutier, J. W. Watson, L. B. Weinstein, K. Wijesooriya, R. Wilson, B. B. Wojtsekhowski, D. G. Zainea, W-M. Zhang, J. Zhao, and Z.-L. Zhou (Jefferson Lab Hall A Collaboration)

Photoproduction of pentaquark cascades from nucleons *(6 pages)* 045204

W. Liu and C. M. Ko

Nuclear Astrophysics

Warm stellar matter with neutrino trapping *(7 pages)* 045801

D. P. Menezes and C. Providência

Superfluid properties of the inner crust of neutron stars *(6 pages)* 045802

N. Sandulescu, Nguyen Van Giai, and R. J. Liotta

Dense and hot matter within the nonlinear Walecka model *(7 pages)* 045803

A. M. S. Santos and D. P. Menezes

Neutrino-"pasta" scattering: The opacity of nonuniform neutron-rich matter *(9 pages)* 045804

C. J. Horowitz, M. A. Pérez-García, and J. Piekarewicz

Density dependencies of interaction strengths and their influences on nuclear matter and neutron stars in relativistic mean field theory *(12 pages)* 045805

S. F. Ban, J. Li, S. Q. Zhang, H. Y. Jia, J. P. Sang, and J. Meng

(Continued)

THIRD SERIES, VOLUME , NUMBER

BRIEF REPORTS

Ground-state properties of rare-earth nuclei in the relativistic Hartree-Bogoliubov model with density-dependent meson-nucleon couplings *(3 pages)* 047301
T. Nikšić, D. Vretenar, G. A. Lalazissis, and P. Ring

Elastic scattering of ^{10}Be on ^{208}Pb near the Coulomb barrier *(3 pages)* 047601
J. J. Kolata, E. F. Aguilera, F. D. Becchetti, Yu Chen, P. A. DeYoung, H. García-Martínez, J. D. Hinnefeld, J. H. Lupton, E. Martinez-Quiroz, and G. Peaslee

Thermodynamic consistency of the equation of state of strongly interacting matter *(4 pages)* 047901
J. Randrup and P. V. Ruuskanen

Particle decay branching ratios for states of astrophysical importance in ^{19}Ne *(4 pages)* 048801
D. W. Visser, J. A. Caggiano, R. Lewis, W. B. Handler, A. Parikh, and P. D. Parker

COMMENTS

Comment on "Interaction induced deformation of the momentum distribution of spin polarized nuclear matter" *(2 pages)* 049801
S. Frauendorf and K. Neergård

Reply to "Comment on 'Interaction induced deformation of the momentum distribution of spin polarized nuclear matter' " *(1 page)* 049802
T. Frick, H. Müther, and A. Sedrakian

Comment on "Extension of the Bethe-Weizsäcker mass formula to light nuclei and some new shell closures" *(2 pages)* 049803
D. N. Basu

Reply to "Comment on 'Extension of the Bethe-Weizsäcker mass formula to light nuclei and some new shell closures' " *(2 pages)* 049804
C. Samanta and S. Adhikari

ERRATA

Publisher's Note: Nuclear moments of inertia and wobbling motions in triaxial superdeformed nuclei [Phys. Rev. C **69**, 034325 (2004)] *(1 page)* . . . . . 049901(E)
Masayuki Matsuzaki, Yoshifumi R. Shimizu, and Kenichi Matsuyanagi

Selected Abstracts from Other Physical Review Journals i
Cumulative Author Index v