

# **Tsung-Shung Harry Lee**

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## **Biographical sketch**

- 2016-present Senior Physicist Emeritus, Argonne National Laboratory
- 2013-2015 Senior Physicist - Special Term Appointee, Argonne National Laboratory
- 1993-2013 Senior Physicist, Argonne National Laboratory
- 1981-93 Physicist, Argonne National Laboratory
- 1977-80 Assistant Physicist, Argonne National Laboratory
- 1975-77 Research Associate, Argonne National Laboratory
- 1973-75 Research Associate, Bartol Research Foundation
- 1973 Ph.D., University of Pittsburgh
- 1968 M.S., Tsing-Hua University, Taiwan
- 1965 B.S., National Taiwan Normal University, Taiwan

## **Visiting appointments**

- 2006-2012, Lead Investigator, Excited Baryon Analysis Center, Jefferson Laboratory
- 1997 Research Center for Nuclear Physics, Osaka University, Japan
- 1992-1998 Adjunct Professor, University of Pittsburgh
- 1984-1987 Swiss Institute of Nuclear Physics, Switzerland
- 1981 Center of Theoretical Physics, MIT
- 1979 State University of New York at Stony Brook

## **Honors, Organizations, Committees, etc.**

- 2004 Chair, Organizing Committee, Fall Meeting, Division of Nuclear Physics, American Physical Society
- 2002-2004 Program Committee, Division of Nuclear Physics, American Physical Society
- 2000-2002 Executive Committee, Division of Nuclear Physics, American Physical Society
- 1992-2003 International Advisory Committee of 13th -17th International Conference on Few-Body Problem
- 1990 Fellow, American Physical Society

## **Ph.D Student Supervision**

- W.-T. Chiang, University of Pittsburgh, 2001
- M. Pichowsky, University of Pittsburgh, 1996
- C. Fasano, University of Chicago, 1988
- S. Chakravati, University of Chicago, 1980

## Recent papers

1. *Pomeron-LQCD model of  $J/\Psi$  photo-production on the nucleons*  
T.-S. H. Lee  
e-print arXiv:2004.13934 [nucl-th] (2020)
2. *Nucleon resonances with hidden charm in  $\gamma p$  reactions*  
Jia-Jun Wu, T.-S. H. Lee, and Bing-Song Zou  
[Phys. Rev. C 100, 035206 \(2019\) \[14 pages\]](#)
3. *Electroweak pion production on nuclei within the extended factorization scheme*  
Noemi Rocco, Satoshi X. Nakamura, T.-S. H. Lee, and Alessandro Lovato  
[Phys. Rev. C 100, 045503 \(2019\) \[15 pages\]](#)
4. *Nucleon resonance structure in the finite volume of lattice QCD*  
Jia-Jun Wu, H. Kamano, T.-S. H. Lee, D. B. Leinweber, and A. W. Thomas  
[Phys. Rev. D 95, 114507 \(2017\) \[19 pages\]](#)
5. *Erratum: Dynamical coupled-channels model of  $K\bar{p}$  reactions. II. Extraction of  $\Lambda^*$  and  $\Sigma^*$  hyperon resonances*  
H. Kamano, S. X. Nakamura, T.-S. H. Lee, and T. Sato  
[Phys. Rev. C 95, 049903 \(2017\) \[3 pages\]](#)
6. *Toward establishing low-lying  $\Lambda$  and  $\Sigma$  hyperon resonances with the  $K+d \rightarrow \pi+Y+N$  reaction*  
H. Kamano and T.-S. H. Lee  
[Phys. Rev. C 94, 065205 \(2016\) \[13 pages\]](#)
7. *Isospin decomposition of  $\gamma N \rightarrow N^*$  transitions within a dynamical coupled-channels model*  
H. Kamano, S. X. Nakamura, T.-S. H. Lee, and T. Sato  
[Phys. Rev. C 94, 015201 \(2016\) \[14 pages\]](#)
8. *Dynamical coupled-channels model of  $K\bar{p}$  reactions. II. Extraction of  $\Lambda^*$  and  $\Sigma^*$  hyperon resonances*  
H. Kamano, S. X. Nakamura, T.-S. H. Lee, and T. Sato  
[Phys. Rev. C 92, 025205 \(2015\) \[16 pages\]](#)
9. *Incoherent pion production in neutrino-deuteron interactions*  
Jia-Jun Wu, T. Sato, T.-S. H. Lee  
[Phys. Rev. C 91, 035203 \(2015\) \[11 pages\]](#)

10. *Incoherent pion production in neutrino-deuteron interactions*  
 Jia-Jun Wu, T. Sato, T.-S. H. Lee  
[Phys. Rev. C 91, 035203 \(2015\) \[11 pages\]](#)
11. *Dynamical coupled-channels model of K-p reactions: Determination of partial-wave amplitudes*  
 H. Kamano, S. X. Nakamura, T.-S. H. Lee, T. Sato  
[Phys. Rev. C 90, 065204 \(2014\) \[40 pages\]](#)

## Selected previous papers

1. *Momentum-space study of pion-nucleus inelastic scattering*  
 T.-S. H. Lee and F. Tabakin  
[Nucl. Phys. A226, 253-281 \(1974\)](#)
2. *Realistic calculations of the ( $\pi$ ,n $\gamma$ ) reaction*  
 T.-S.H. Lee, J.D. Vergados  
[Phys. Letts. B 53, 125-128 \(1974\)](#)
3. *Derivation of relativistic three-dimensional formalisms from the Bethe-Salpeter equation*  
 Abraham Klein and Tsung-Shung H. Lee  
[Phys. Rev. D 10, 4308-4312 \(1974\)](#)
4. *Padé approximants and the effective shell model interaction*  
 T.-S.H. Lee, S. Pittel  
[Phys. Letts. B 53, 409-412 \(1975\)](#)
5. *Fragmentation of magnetic dipole strength in  $^{208}Pb$*   
 T.-S. H. Lee and S. Pittel  
[Phys. Rev. C 11, 607-609 \(1975\)](#)
6. *Nonperturbative three-dimensional formalism for the study of the nucleon-nucleon interaction*  
 Abraham Klein and Tsung-Shung H. Lee  
[Phys. Rev. C 12, 1381-1391 \(1975\)](#)
7. *The influence of ambiguities in the pion production operator on ( $p, \pi^+$ ) cross sections*  
 T.-S. H. Lee and S. Pittel  
[Nucl. Phys. A256, 509-520 \(1976\)](#)
8. *Remarks on calculating the pion-nucleus first-order optical potential*  
 T.-S. H. Lee  
[Phys. Lett. 67B, 282-284 \(1977\)](#)
9. *Second-order pion-nucleus optical potential*  
 T.-S. H. Lee and S. Chakravarti  
[Phys. Rev. C 16, 273-283 \(1977\)](#)

10. *Nuclear-Structure Effects in Pion Double Charge Exchange*  
 T.-S. H. Lee, D. Kurath, and B. Zeidman  
[Phys. Rev. Lett. 39, 1307-1310 \(1977\)](#)
11. *Excitation of High-Spin Particle-Hole States in  $^{28}Si$  by Pion Inelastic Scattering*  
 C. Olmer, B. Zeidman, D. F. Geesaman, T.-S. H. Lee, R. E. Segel, L. W. Swenson, R. L. Boudrie, G. S. Blanpied, H. A. Thiessen, C. L. Morris, and R. E. Anderson  
[Phys. Rev. Lett. 43, 612-615 \(1979\)](#)
12. *Elastic and inelastic scattering of 162 MeV pions by  $^{28}Si$ ,  $^{58}Ni$ , and  $^{208}Pb$*   
 C. Olmer, D. F. Geesaman, B. Zeidman, S. Chakravarti, T.-S. H. Lee, R. L. Boudrie, R. H. Siemssen, J. F. Amann, C. L. Morris, H. A. Thiessen, G. R. Burleson, M. J. Devereux, R. E. Segel, and L. W. Swenson  
[Phys. Rev. C 21, 254-271 \(1980\)](#)
13. *Inelastic pion scattering for 1p-shell targets*  
 T.-S. H. Lee and D. Kurath  
[Phys. Rev. C 21, 293-305 \(1980\)](#)
14. *Inelastic pion scattering from  $^{18}O$*   
 T.-S. H. Lee and R. D. Lawson  
[Phys. Rev. C 21, 679-690 \(1980\)](#)
15. *Excitation of non-normal parity states by pion scattering: Application to  $^{13}C$*   
 T.-S. H. Lee and D. Kurath  
[Phys. Rev. C 22, 1670-1679 \(1980\)](#)
16. *Phenomenological Hamiltonian for pions, nucleons, and  $\Delta$  isobars: Applications to the pion-deuteron system*  
 M. Betz and T.-S. H. Lee  
[Phys. Rev. C 23, 375-398 \(1981\)](#)
17. *A closure-approximation calculation of a pion double-charge-exchange reaction*  
 Guang-Lie Li, Chu-Hsia Li, T.-S.H. Lee  
[Phys. Letts. B 99, 200-204 \(1981\)](#)
18. *Microscopic study of the  $\Delta$ -nucleus potential from a many-body Hamiltonian for  $\pi$ ,  $N$ , and  $\Delta$*   
 T.-S. H. Lee and K. Ohta  
[Phys. Rev. C 25, 3043-3049 \(1982\)](#)
19. *Isospin Dependence of Pion Absorption on  $^3He$*   
 T.-S. H. Lee and K. Ohta  
[Phys. Rev. Lett. 49, 1079-1082 \(1982\)](#)
20. *Meson-Exchange Hamiltonian for NN Scattering up to 1 GeV and  $\Delta$ -Nucleus Dynamics*  
 T.-S. H. Lee  
[Phys. Rev. Lett. 50, 1571-1574 \(1983\)](#)

21. *Meson theory of nucleon-nucleon scattering up to 2 GeV*  
T.-S. H. Lee  
[Phys. Rev. C 29, 195-203 \(1984\)](#)
22. *Study of the two-nucleon mechanism of pion absorption in nuclei*  
K. Ohta, M. Thies and T.-S. H. Lee  
Ann. Phys. **163**, 420-472 (1985)
23. *Mechanism of  $^3\text{He}(\pi, pn)$  reaction*  
T.-S. H. Lee  
[Phys. Rev. C 31, 2163-2167 \(1985\)](#)
24. *Theory of mesonic and dibaryonic excitations in the  $\pi NN$  system: Derivation of  $\pi NN$  scattering equations*  
T.-S. H. Lee and A. Matsuyama  
[Phys. Rev. C 32, 516-530 \(1985\)](#)
25. *Delta excitations in heavy nuclei induced by ( $^3\text{He}, t$ ) and ( $p, n$ ) reactions*  
H. Esbensen and T.-S. H. Lee  
[Phys. Rev. C 32, 1966-1971 \(1985\)](#)
26. *Validity of the coupled-channel method for the study of  $\Delta$  excitation in intermediate-energy  $NN$  scattering*  
T.-S. H. Lee and A. Matsuyama  
[Phys. Rev. C 32, 1986-1989 \(1985\)](#)
27. *Calculation of the ( $\Delta$ - $h, p$ - $h$ ) Landau parameter  $g'\Delta$  from a many-body Hamiltonian including  $\pi$  and  $\Delta$  degrees of freedom*  
H. Sagawa, T.-S. H. Lee, and K. Ohta  
[Phys. Rev. C 33, 629-633 \(1986\)](#)
28. *Relativistic effects in three-body bound states*  
W. Glöckle, T.-S. H. Lee, and F. Coester  
[Phys. Rev. C 33, 709-716 \(1986\)](#)
29. *Effect of  $\pi\pi$  interactions in  $\pi N$  scattering*  
J. A. Johnstone and T.-S. H. Lee  
[Phys. Rev. C 34, 243-249 \(1986\)](#)
30. *Unitary meson-exchange calculation of  $NN \rightarrow NN\pi$  reaction*  
A. Matsuyama and T.-S. H. Lee  
[Phys. Rev. C 34, 1900-1910 \(1986\)](#)
31. *Photoproduction and electroproduction of  $\Delta$  as test of  $\Delta s$  in nuclei*  
H. J. Lipkin and T.-S. H. Lee  
Phys. Lett. **B183**, 22-26 (1987)
32. *Unitary meson-exchange  $\pi NN$  models:  $NN$  and  $\pi d$  elastic scattering*  
T.-S. H. Lee and A. Matsuyama  
[Phys. Rev. C 36, 1459-1471 \(1987\)](#)

33. *Quark compound bag model for NN scattering up to 1 GeV*  
C. Fasano and T.-S. H. Lee  
[Phys. Rev. C 36, 1906-1915 \(1987\)](#)
34. *Excitation of the  $\Delta$  resonance in the  $^{12}\text{C}(e,e')$  reaction*  
C. R. Chen and T.-S. H. Lee  
[Phys. Rev. C 38, 2187-2192 \(1988\)](#)
35. *Three nucleon force in the quark compound bag model*  
C. Fasano and T.-S. H. Lee  
*Phys. Lett.* **B217**, 9-13 (1989)
36. *Partial-wave analysis of the  $p\bar{p} \rightarrow p\bar{n}\pi^+$  reaction*  
T.-S. H. Lee  
[Phys. Rev. C 40, 2911-2913 \(1989\)](#)
37. *Neutral pion photoproduction on the nucleon near threshold*  
S. Nozawa, T.-S. H. Lee, and B. Blankleider  
[Phys. Rev. C 41, 213-220 \(1990\)](#)
38. *Coupled-channel meson-exchange NN model with a separable short-range interaction*  
C. G. Fasano and T.-S. H. Lee  
[Nucl. Phys. A513, 442-458 \(1990\)](#)
39. *A dynamical model of pion photoproduction on the nucleon*  
S. Nozawa, B. Blankleider, and T.-S. H. Lee  
[Nucl. Phys. A513, 459-510 \(1990\)](#)
40. *Electroproduction of pions on the nucleon (I)*  
S. Nozawa and T.-S. H. Lee  
[Nucl. Phys. A513, 511-542 \(1990\)](#)
41. *Electroproduction of pions on the nucleon (II). Polarization observables*  
S. Nozawa and T.-S. H. Lee  
[Nucl. Phys. A513, 543-556 \(1990\)](#)
42. *Unitary meson-exchange calculation of the  $\pi+d \leftrightarrow p\bar{p}$  reaction*  
A. Matsuyama and T.-S. H. Lee  
[Nucl. Phys. A526, 547-559 \(1991\)](#)
43. *Meson-exchange  $\pi N$  model and neutral pion photoproduction from proton near threshold*  
C. Lee, S. N. Yang, and T.-S. H. Lee  
*J. Phys. G* **17**, L131-L137 (1991)
44. *Meson-exchange calculation of the  $\gamma N \rightarrow \pi N$  reaction*  
T.-S. H. Lee and B. C. Pearce  
[Nucl. Phys. A530, 532-538 \(1991\)](#)
45. *Comments on nucleon-nucleon phase-shift analyses in the delta excitation region*

- C. G. Fasano and T.-S. H. Lee  
*Z. Phys. A* **340**, 101-103 (1991)
46. *Color transparency and high energy ( $p, 2p$ ) nuclear reactions*  
T.-S. H. Lee and G. A. Miller  
[Phys. Rev. C 45, 1863-1870 \(1992\)](#)
47. *Correlation effects in  $^{11}B(\pi^-, \pi^+)_{^{11}Li}$  reactions*  
H. Esbensen, D. Kurath, and T.-S. H. Lee  
*Phys. Lett.* **287B**, 289-292 (1992)
48. *Pion absorption on polarized nuclear targets*  
M. G. Khayat, N. S. Chant, P. G. Roos, and T.-S. H. Lee  
[Phys. Rev. C 46, 2415-2429 \(1992\)](#)
49. *Chiral symmetry and threshold  $\pi\pi$  electroproduction*  
V. Bernard, N. Kaiser, T.-S. H. Lee, and Ulf-G. Meissner  
[Phys. Rev. Lett. 70, 387-390 \(1993\)](#)
50. *Short range exchange contributions to the cross section for  $pp \rightarrow pp\pi^0$  near threshold*  
T.-S. H. Lee and D. O. Riska  
[Phys. Rev. Lett. 70, 2237-2240 \(1993\)](#)
51. *Nuclear structure studies with  $(e, e')$ ,  $(\pi, \pi')$  and  $(\gamma, \pi)$  reactions: applications to  $^{10}B$*   
T. Sato, N. Odagawa, H. Ohtsubo, and T.-S. H. Lee  
[Phys. Rev. C 49, 776-788 \(1994\)](#)
52. *Threshold pion electroproduction in chiral perturbation theory*  
V. Bernard, N. Kaiser, T.-S. H. Lee, and Ulf-G. Meissner  
[Phys. Rep. 246, 315-363 \(1994\)](#)
53. *A relativistic meson-exchange model of pion-nucleon scattering*  
C. T. Hung, S. N. Yang, and T.-S. H. Lee  
*J. Phys. G* **20**, 1531-1536 (1994)
54. *Off-shell effects for the reaction  $pp \rightarrow \pi d$  at high energies*  
M. Batinic, T.-S. H. Lee, M. P. Locher, Yang Lu, and A. Svarc  
[Phys. Rev. C 50, 1300-1307 \(1994\)](#)
55. *Two-body pion absorption on  $^3He$  at threshold*  
L. L. Kiang, T.-S. H. Lee, and D. O. Riska  
[Phys. Rev. C 50, 2703-2709 \(1994\)](#)
56. *Nuclear structure studies with intermediate energy probes*  
T.-S. H. Lee  
[Nucl. Phys. A570, 195c-202c \(1994\)](#)
57. *Nuclear structure of  $^{10}B$  studied with  $(e, e')$ ,  $(\pi, \pi')$  and  $(\gamma, \pi)$  reactions*  
T. Sato, N. Odagawa, H. Ohtsubo, T.-S.H. Lee  
[Nucl. Phys. A577, 219c-224c \(1994\)](#)

58. *Proton-proton bremsstrahlung below and above pion threshold: Influence of the  $\Delta$  isobar*  
 F. de Jong, K. Nakayama, and T.-S. H. Lee  
[Phys. Rev. C 51, 2334-2346 \(1995\)](#)
59. *The effect of the  $\Delta$  excitation on the nucleon-nucleon effective interactions in the nuclear shell model*  
 Y. Tzeng, T. T. S. Kuo, and T.-S. H. Lee  
*Physica Scripta* **53**, 300 (1996)
60. *Pomeron exchange and exclusive electroproduction of  $\rho$ -mesons*  
 M. A. Pichowsky and T.-S. H. Lee  
[Phys. Lett. B 379, 1-6 \(1996\)](#)
61. *Medium effects on binary collisions with the  $\Delta$  resonance*  
 T.-S. H. Lee  
[Phys. Rev. C 54, 1350-1359 \(1996\)](#)
62. *Meson-exchange model for  $\pi N$  scattering and  $\gamma N \rightarrow \pi N$  reaction*  
 T. Sato and T.-S. H. Lee  
[Phys. Rev. C 54, 2660-2684 \(1996\)](#)
63. *Chiral transparency*  
 L. Frankfurt, T.-S. H. Lee, G. A. Miller, and M. Strikman  
[Phys. Rev. C 55, 909-916 \(1997\)](#)
64.  *$E2/M1$  ratio of the  $\Delta \leftrightarrow \gamma N$  transition within the chiral constituent quark model*  
 P.-N. Shen, Y.-B. Dong, Z.-Y. Zhang, Y.-W. Yu, and T.-S. H. Lee  
[Phys. Rev. C 55, 2024-2029 \(1997\)](#)
65. *Pion absorption cross section for  $^2\text{H}$  and  $^3\text{He}$  in the  $\Delta$ -isobar region: A phenomenological connection*  
 H. Kamada, M. P. Locher, T.-S. H. Lee, J. Golak, V. E. Markushin, W. Glöckle, and H. Witala  
[Phys. Rev. C 55, 2563-2570 \(1997\)](#)
66. *Neutral pion photoproduction on deuterium in baryon chiral perturbation theory to order  $q_4$*   
 S. R. Beane, V. Bernard, T.-S. H. Lee, Ulf-G. Meissner, and U. van Kolck  
[Nucl. Phys. A618, 381-401 \(1997\)](#)
67. *Chiral perturbation theory and the  $pp \rightarrow pp\pi^0$  reaction near threshold*  
 T. Sato, T.-S. H. Lee, F. Myhrer, and K. Kubodera  
[Phys. Rev. C 56, 1246-1255 \(1997\)](#)
68. *Exclusive diffractive processes and the quark substructure of mesons*  
 M. A. Pichowsky and T.-S. H. Lee  
[Phys. Rev. D 56, 1644-1662 \(1997\)](#)
69. *Near threshold  $\eta$  production in proton-proton collisions*  
 M. Batinic, A. Svarc, and T.-S. H. Lee  
*Physica Scripta* **56**, 321-324 (1997)

70. *Mean-field calculation of compressed finite nuclei with  $\Delta$  excitations*  
 M. A. Hasan, T.-S. H. Lee, and J. P. Vary  
[Phys. Rev. C 56, 3063-3069 \(1997\)](#)
71. *Isoscalar S-wave  $\pi$ -N scattering length  $a_+$  from  $\pi$ -deuteron scattering*  
 S. R. Beane, V. Bernard, T.-S. H. Lee, and Ulf-G. Meissner  
[Phys. Rev. C 57, 424-426 \(1998\)](#)
72. *Chiral constituent quark model predictions of electroproduction of the  $\Delta$  on the nucleon and  $^3\text{He}$*   
 T.-S. H. Lee  
[Nucl. Phys. A 629, 180c-189c \(1998\)](#)
73. *Pion absorption reaction on  $^2\text{H}$  and  $^3\text{He}$  in the  $\Delta$ -isobar region*  
 H. Kamada, M. P. Locher, T.-S. H. Lee, J. Golak, V. E. Markushin, W. Glöckle, and H. Witala  
[Nucl. Phys. A 631, 519c-523c \(1998\)](#)
74. *Photoproduction of a  $\Lambda$  on  $^{12}\text{C}$*   
 T.-S. H. Lee, Z.-Y. Ma, B. Saghai, and H. Toki  
[Phys. Rev. C 58, 1551-1557 \(1998\)](#)
75. *Folded-diagram effective interactions for hypernuclei*  
 Y. Tzeng, S. Y. T. Tzeng, T. T. S. Kuo, and T.-S. H. Lee  
[Nucl. Phys. A 639, 165c-168c \(1998\)](#)
76. *Study of hyperon-nucleon interactions with  $d(e,e'K)$  reactions*  
 T.-S. H. Lee, V. G. J. Stoks, B. Saghai, and C. Fayard  
[Nucl. Phys. A 639, 247c-250c \(1998\)](#)
77. *The new determination of the  $\eta$ -N S-wave scattering length from a three-channel, multi-resonance amplitude analysis*  
 M. Batinic, I. Dadic, I. Slaus, A. Svarc, B. M. K. Nefkens, and T.-S. H. Lee  
*Physica Scripta* **58**, 15-18 (1998)
78. *Nonperturbative chiral approach to  $Kp \rightarrow \gamma Y$  reactions*  
 T.-S. H. Lee, J. A. Oller, E. Oset, and A. Ramos  
[Nucl. Phys. A 643, 402-414 \(1998\)](#)
79. *Isotopic effect in  $\varphi$  photoproduction at a few GeV*  
 A. I. Titov, T.-S. H. Lee, and H. Toki  
[Phys. Rev. C 59, R2993-R2997 \(1999\)](#)
80. *Evidence for the fourth  $P_{11}$  resonance predicted by the constituent quark model*  
 S. Capstick, T.-S. H. Lee, W. Roberts, and A. Svarc  
[Phys. Rev. C 59, R3002-R3004 \(1999\)](#)
81. *Strange hadron matter and  $SU(3)$  symmetry*  
 V. G. J. Stoks and T.-S. H. Lee  
[Phys. Rev. C 60, 024006 \(1999\) \[9 pages\]](#)

82. *Structure of the  $\phi$  photoproduction amplitude at a few GeV*  
A. I. Titov, T.-S. H. Lee, H. Toki, and O. Streltsova  
[Phys. Rev. C 60, 035205 \(1999\)](#) [20 pages]
83. *Particle-hole folded-diagram calculation of the hypernucleus  $\Lambda^{16}O$  using meson-exchange interactions*  
Yiharn Tzeng, S. Y. Tsay Tzeng, T. T. S. Kuo, and T.-S. H. Lee  
[Phys. Rev. C 60, 044305 \(1999\)](#) [13 pages]
84. *Baryon resonance extraction from  $\pi N$  data using a unitary multichannel model*  
T. P. Vrana, S. A. Dytman, and T.-S. H. Lee  
[Phys. Rep. 328, 181-236 \(2000\)](#)
85. *Effect of neutron excess on  $\Delta$  excitations in exotic nuclei*  
Mahmoud A. Hasan, James P. Vary, and T.-S. H. Lee  
[Phys. Rev. C 61, 014301 \(2000\)](#) [7 pages]
86. *Two-frequency shell model for hypernuclei and meson-exchange hyperon-nucleon potentials*  
Yiharn Tzeng, S. Y. Tsay Tzeng, T. T. S. Kuo, T.-S. H. Lee, and V. G. J. Stoks  
[Phys. Rev. C 61, 031305\(R\) \(2000\)](#) [4 pages]
87. *Dynamical test of constituent quark models with  $\pi N$  reactions*  
T. Yoshimoto, T. Sato, M. Arima, and T.-S. H. Lee  
[Phys. Rev. C 61, 065203 \(2000\)](#) [17 pages]
88. *A local density approximation treatment for the Pauli exclusion operator in hypernuclei*  
Y. Tzeng, S. Y. Tsay Tzeng, T. T. S. Kuo, and T.-S. H. Lee  
[J. Phys. G 26, 1765-1774 \(2000\)](#)
89. *Quantum Monte Carlo calculations of pion scattering from Li*  
T.-S. H. Lee and R. B. Wiringa  
[Phys. Rev. C 63, 014006 \(2001\)](#) [5 pages]
90.  *$\phi$ -N bound state*  
H. Gao, T.-S. H. Lee, and V. Marinov  
[Phys. Rev. C 63, 022201 \(2001\)](#) [3 pages]
91. *Nucleon resonances in  $\omega$  photoproduction*  
Y. Oh, A. I. Titov, and T.-S. H. Lee  
[Phys. Rev. C 63, 025201 \(2001\)](#) [9 pages]
92. *Dynamical study of the  $\Delta$  excitation in  $N(e, e'\pi)$  reactions*  
T. Sato and T.-S. H. Lee  
[Phys. Rev. C 63, 055201 \(2001\)](#) [13 pages]
93. *Medium-mass nuclei with  $\Delta$  excitations under compression*  
Mahmoud A. Hasan, James P. Vary, and T.-S. H. Lee  
[Phys. Rev. C 64, 024306 \(2001\)](#) [8 pages]

94. *Meson-exchange  $\pi N$  models in three-dimensional Bethe-Salpeter formulation*  
 Cheng-Tsung Hung, Shin Nan Yang, and T.-S. H. Lee  
[Phys. Rev. C 64, 034309 \(2001\) \[10 pages\]](#)
95. *Coupled-channel study of  $\gamma p \rightarrow K+\Lambda$*   
 Wen-Tai Chiang, F. Tabakin, T.-S. H. Lee, and B. Sighai  
[Phys. Lett. B 517, 101-108 \(2001\)](#)
96. *Dynamical study of the  $^2H(e, e'\pi^+)$  reaction*  
 K. Hafidi and T.-S. H. Lee  
[Phys. Rev. C 64, 064607 \(2001\) \[5 pages\]](#)
97. *Nucleon resonances with double polarization observables of pion photoproduction*  
 D. Dutta, H. Gao, and T.-S. H. Lee  
[Phys. Rev. C 65, 044619 \(2002\) \[6 pages\]](#)
98.  *$\eta$  meson production in  $NN$  collisions*  
 K. Nakayama, J. Speth, and T.-S. H. Lee  
[Phys. Rev. C 65, 045210 \(2002\) \[12 pages\]](#)
99. *Effective Lagrangian approach to the  $\omega$  photoproduction near threshold*  
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