

G. ASSISTANCE TO OUTSIDE USERS OF ATLAS

D. J. Hofman

This year has seen a continuation of a large number of outside Users of ATLAS due to the very active, successful program utilizing Gammasphere. Outside Users were involved in about 95% of all experiments performed in fiscal year 1999. David J. Hofman has been available in a user liaison capacity to handle the scheduling of ATLAS experiments, provide assistance in experiment proposal submission matters, and help facilitate the effective performance of research at ATLAS by outside scientists. In addition, a large portion of the Heavy-Ion in-house scientific staff has spent time in experiment setup, preparation and assistance for the many different Gammasphere experiments.

The program advisory committee met twice during the 1999 fiscal year. Program advisory committee meetings were held on November 9-10, 1998 and May 21-22, 1999 to recommend experiments for running time at ATLAS. In FY 1999 the Program Advisory Committee members were:

David Balamuth	University of Pennsylvania
Russell Betts	Argonne National Laboratory
Bernard Haas	Institut de Recherches Subatomiques (Strasbourg)
I-Y. Lee (chair)	Lawrence Berkley Laboratory
Witek Nazarewicz	University of Tennessee
Lee Riedinger	University of Tennessee
Bradley Sherrill	Michigan State University
Robert Tribble	Texas A&M University

The PAC reviewed 40 proposals for 198 days of requested running time and 45 proposals for 225 days of running time at the two meetings, respectively. Of the submitted proposals for both meetings, the program advisory committee recommended acceptance of 33 proposals for a total of 159 days of running time.

The ATLAS User Executive Committee organized a joint User Group meeting chaired by David Fossan in conjunction with the Gammasphere and Berkley 88" Cyclotron User Groups during the October 1999 Division of Nuclear Physics APS meeting held at Pacific Grove, CA. Approximately 100 scientists attended the meeting. The main topics of discussion concerning Argonne were the status of ATLAS, updates on various experimental programs and issues surrounding Gammasphere. In FY 1999 the ATLAS Executive Committee consisted of David Fossan (SUNY Stony Brook) as Chairperson, Michael Wiescher (University of Notre Dame), and Frank Wolfs (University of Rochester).

A wide variety of experiments were carried out at ATLAS during the last year, with emphasis placed on utilization of Gammasphere during its tenure at ATLAS. The strength and diversity of the research program at ATLAS continues to rely heavily on active involvement by universities and other institutions.

a. Experiments Involving Outside Users

All experiments in which outside users directly participated during FY 1999 are listed below. The spokesperson for each experiment is given in square brackets after the title, and the collaborators who were present for the experiment are given with their home institution below each entry.

- (1) Heavy-Ion Lithography on High Temperature Superconductors [Kwok]
L. Paulius, Western Michigan University; W. Kwok, R. Olsson, Material Science Division, Argonne National Lab; D. Hofman, Argonne National Lab.
- (2) Ion Irradiations of Anisotropic High-Tc Superconductors: Probing Dynamics of Magnetic Vortices [Miller]
P. Berghuis, D. Kim, D. Miller, Material Science Division, Argonne National Lab; D. Hofman, Argonne National Lab.

- (3) Preparation of the FMA and Auxiliary Detectors for Operation with Gammasphere [Lister]
J. Schwartz, Yale University; P. Hausladen, University of Pennsylvania; P. Chowdhury, E. Seabury, University of Massachusetts, Lowell; W. Walters, University of Maryland; R. Macleod, Thomas Jefferson Nat'l. Accelerator Facility; J. Cizewski, K. Ding, N. Fotiadis, Rutgers University; P. Reiter, Ludwig Maximilians-Universität München; P. Fallon, A. Macchiavelli, M. Maier, Lawrence Berkeley National Lab.; M. Carpenter, C. Davids, D. Henderson, R. Janssens, T. Khoo, T. Lauritsen, C. Lister, D. Nisius, D. Seweryniak, J. Uusitalo, Argonne National Lab.
- (4) Accelerator-Mass-Spectrometry Measurements of Natural ^{236}U Concentrations with the ECR-ATLAS System [Paul]
B. Harss, Tu Munich; D. Berkovits, Soreq Nuclear Research Center; F. Borasi, Ludwig Maximilians-Universität München; M. Paul, Hebrew University of Jerusalem; I. Ahmad, J. Caggiano, J. Greene, A. Heinz, C. Jiang, R. Pardo, K. Rehm, R. Rejoub, D. Seweryniak, A. Sonzogni, R. Vondrasek, Argonne National Lab.
- (5) Study of $^{44}\text{Ti}(\text{p})^{47}\text{V}$ at Energies of Astrophysical Interest [Sonzogni]
B. Harss, Tu Munich; F. Borasi, R. Segel, Northwestern University; M. Paul, Hebrew University of Jerusalem; I. Ahmad, C. Davids, J. Greene, D. Henderson, W. Henning, R. Janssens, C. Jiang, J. Nolen, R. Pardo, K. Rehm, J. Schiffer, D. Seweryniak, R. Siemssen, A. Sonzogni, J. Uusitalo, I. Wiedenhoever, Argonne National Lab.
- (6) Test of ^{86}Kr Beam Production and Heavy Element Synthesis [Janssens]
P. Reiter, Ludwig Maximilians-Universität München; J. Caggiano, J. Greene, A. Heinz, W. Henning, R. Janssens, C. Jiang, T. Khoo, F. Kondev, T. Lauritsen, R. Pardo, J. Schiffer, D. Seweryniak, I. Wiedenhoever, Argonne National Lab.
- (7) Measurement of the $^3\text{He}(^{25}\text{Al},d)^{26}\text{Si}$ Reaction: Production of an ^{25}Al Beam [Champagne]
D. Bardayan, P. Parker, Yale University; A. Champagne, University of North Carolina-Chapel Hill; B. Harss, Tu Munich; J. Blackmon, Oak Ridge National Laboratory; R. Janssens, C. Jiang, R. Pardo, K. Rehm, A. Sonzogni, J. Uusitalo, Argonne National Lab.
- (8) A Study of Radiative Decay from High Lying States in ^{24}Mg [Lister]
J. Schwartz, Yale University; W. Catford, University of Surrey; J. Cizewski, Rutgers University; M. Carpenter, R. Janssens, T. Lauritsen, K. Lister, I. Wiedenhoever, A. Wuosmaa, Argonne National Lab.
- (9) A Measurement of the Radiative Decay from High Lying States in ^{24}Mg [Lister]
M. Carpenter, A. Heinz, R. Janssens, F. Kondev, C. Lister, I. Wiedenhoever, Argonne National Lab.
- (10) Determination of the Nuclear Diffuseness Parameter from Deep Sub-Barrier Fusion [Dasgupta]
G. Lane, Lawrence Berkeley National Lab.; A. Byrne, M. Dasgupta, D. Hinde, C. Morton, Australian National University; B. Back, C. Lister, Argonne National Lab.
- (11) Spectroscopy of Odd Tin Isotopes Approaching ^{100}Sn [Freeman]
J. Schwartz, Yale University; M. Devlin, D. Sarantites, Washington University; D. Balamuth, University of Pennsylvania; C. Baskill, S. Freeman, M. Leddy, A. Qadir, S. Robinson, J. Smith, B. Varley, University of Manchester; J. Wilson, University of Copenhagen; M. Carpenter, C. Lister, D. Seweryniak, Argonne National Lab.
- (12) Alpha and Proton Calibration of Microball [Sarantites]
M. Devlin, F. Lerma, D. Sarantites, Washington University; A. Axelsson, M. Weiszflog, Uppsala University; H. Eberth, T. Steinhardt, Universität zu Köln; W. Reviol, University of Tennessee; J. Wilson, University of Copenhagen; C. Andreoiu, C. Fahlander, D. Rudolph, Lund University; R. Clark, Lawrence Berkeley National Lab.; S. Fischer, De Paul University; M. Carpenter, Argonne National Lab.

- (13) Deformation and Proton Decay in ^{185}Bi [Davids]
J. Ressler, University of Maryland; T. Davinson, P. Woods, University of Edinburgh;
J. Cizewski, Rutgers University; J. Caggiano, M. Carpenter, C. Davids, A. Heinz, F. Kondev,
T. Lauritsen, D. Seweryniak, I. Wiedenhoever, Argonne National Lab.
- (14) Exploring Methods to Measure the Missing 3^+ -State in ^{26}Si [Lister]
J. Schwartz, Yale University; B. Harss, Tu Munich; R. Janssens, C. Lister, K. Rehm, Argonne
National Lab.
- (15) Isospin Symmetry and Identical Bands in the $A \sim 80$ Region – Mirror Nuclei Across the $N = Z$ Line
[Leddy]
J. Schwartz, Yale University; C. Baskill, S. Freeman, M. Leddy, A. Qadir, S. Robinson,
B. Varley, University of Manchester; L. Bernstein, P. Garrett, Lawrence Livermore National Lab.;
L. McLean, Duke University; C. Lister, R. Janssens, Argonne National Lab.
- (16) Spectroscopy of Nuclei Near $N = Z = 40$ Using Gammasphere and the FMA [Bernstein]
N. Fotiadis, Rutgers University; E. Tavukcu, North Carolina State Univ.; R. Bauer, J. Becker,
L. Bernstein, K. Hauschild, Lawrence Livermore National Lab.; C. Lister, I. Wiedenhoever,
Argonne National Lab.
- (17) Superdeformation, Shell Structure and Neutron-Proton Correlations at $A \sim 90$, $N \sim Z$ [Cederwall]
M. Devlin, D. Sarantites, Washington University; M. Hausmann, A. Jungclaus, Universität
Göttingen; J. Wilson, University of Copenhagen; T. Bäck, B. Cederwall, E. Ideguchi, K. Jonsson,
W. Klamra, Royal Institute of Technology; D. Napoli, Lab. Nazionali di Legnaro; Ö. Skeppstedt,
Chalmers University of Technology; M. Carpenter, R. Janssens, D. Seweryniak, Argonne
National Lab.
- (18) Study of Excited States in ^{181}Tl and ^{179}Au - Spectroscopy Beyond the Neutron Midshell [Reviol]
D. Jenkins, R. Wadsworth, University of York; D. Balabanski, C. Bingham, D. Hartley,
W. Reviol, L. Riedinger, O. Zeidan, University of Tennessee; W. Mueller, University of Leuven;
M. Carpenter, R. Janssens, T. Khoo, F. Kondev, T. Lauritsen, C. Lister, D. Seweryniak,
I. Wiedenhoever, Argonne National Lab.
- (19) Proton Decay Fine Structure and α -Decays of ^{141}Ho [Woods]
U. Garg, S. Zhu, University of Notre Dame; S. Tumey, W. Walters, University of Maryland;
T. Davinson, P. Woods, University of Edinburgh; J. Cizewski, Rutgers University; M. Carpenter,
C. Davids, R. Janssens, T. Khoo, D. Seweryniak, A. Sonzogni, J. Uusitalo, Argonne National
Lab.
- (20) Deformation and Superdeformation in $N = Z = 44$ Nuclide ^{88}Ru [Lister]
J. Schwartz, Yale University; M. Quinn, A. Teymurazyan, S. Vincent, University of Notre Dame;
J. Durell, S. Freeman, B. Varley, University of Manchester; T. Bäck, K. Jonsson, Royal Institute
of Technology; C. Lister, I. Wiedenhoever, Argonne National Lab.
- (21) Study of the Symmetric Reaction $^{90}\text{Zr} + ^{90}\text{Zr}$ using Gammasphere and the Fragment Mass Analyzer
[Carpenter]
J. Schwartz, Yale University; M. Furlotti, D. Sarantites, Washington University; W. Reviol,
University of Tennessee; B. Herskind, University of Copenhagen; W. Ma, P. Varmette,
Mississippi State University; I. Ahmad, J. Caggiano, M. Carpenter, C. Davids, A. Heinz,
R. Janssens, R. Kaye, Jr., T. Khoo, F. Kondev, T. Lauritsen, C. Lister, D. Seweryniak,
I. Wiedenhoever, Argonne National Lab.
- (22) Formation Mechanism, Fission Barrier and Structure of $^{254,255}\text{No}$ at High Angular Momentum [Reiter]
S. Siem, University of Oslo; A. Chewter, R. Herzberg, University of Liverpool; H. Kankaanpää,
University of Jyväskylä; J. Cizewski, N. Fotiadis, Rutgers University; P. Reiter, Ludwig
Maximilians-Universität München; K. Vetter, Lawrence Berkeley National Lab.; M. Carpenter,
A. Heinz, R. Janssens, T. Khoo, F. Kondev, T. Lauritsen, C. Lister, D. Seweryniak,
A. Sonzogni, J. Uusitalo, I. Wiedenhoever, Argonne National Lab.

- (23) Study of the Odd-Odd $N = Z$ Nucleus ^{70}Br [Fallon]
 R. Charity, M. Furlotti, D. Sarantites, V. Tomov, Washington University; N. Kelsall, R. Wadsworth, University of York; W. Reviol, University of Tennessee; S. Vincent, University of Notre Dame; G. Ball, TRIUMF; D. Rudolph, Lund University; R. Clark, M. Cromaz, P. Fallon, A. Macchiavelli, C. Svensson, Lawrence Berkeley National Lab.; S. Fischer, De Paul University; M. Carpenter, C. Lister, D. Seweryniak, Argonne National Lab.
- (24) Recoil Decay Tagging Study of the Highly Deformed Proton Emitter ^{131}Eu [Woods]
 J. Ressler, J. Shergur, W. Walters, University of Maryland; J. Uusitalo, University of Jyväskylä; P. Woods, University of Edinburgh; J. Cizewski, Rutgers University; M. Carpenter, C. Davids, R. Janssens, D. Seweryniak, Argonne National Lab.
- (25) Is the Superdeformed Decay-Out Mechanism in the Mass 150 Region Different than in the 190 Region? [Lauritsen]
 I. Ahmad, M. Carpenter, R. Janssens, T. Khoo, F. Kondev, T. Lauritsen, C. Lister, I. Wiedenhoever, Argonne National Lab.
- (26) Fission Barrier, Limits of Stability, Formation Mechanism and Structure of ^{252}No [Reiter]
 G. Jones, University of Liverpool; R. Julin, University of Jyväskylä; J. Cizewski, Rutgers University; P. Bhattacharyya, Purdue University; P. Reiter, Ludwig Maximilians-Universität München; I. Ahmad, J. Caggiano, M. Carpenter, R. Janssens, T. Khoo, F. Kondev, T. Lauritsen, C. Lister, D. Seweryniak, I. Wiedenhoever, Argonne National Lab.
- (27) Unsafe Coulex of the $^{238,239}\text{Pu}$ Nuclei [Janssens]
 S. Siem, University of Oslo; G. Hackman, University of Kansas; H. Amro, North Carolina State Univ.; P. Reiter, Ludwig Maximilians-Universität München; A. Macchiavelli, Lawrence Berkeley National Lab.; I. Ahmad, M. Carpenter, R. Janssens, T. Khoo, T. Lauritsen, C. Lister, A. Sonzogni, J. Uusitalo, I. Wiedenhoever, Argonne National Lab.
- (28) Coupling Between Single-Particle and Collective Modes in ^{235}U [Cline]
 M. Devlin, Washington University; P. Napiorkowski, Warsaw University; D. Cline, M. Simon, R. Teng, C. Wu, University of Rochester; A. Macchiavelli, K. Vetter, Lawrence Berkeley National Lab.; J. Gerl, H. Wollersheim, GSI, Darmstadt; M. Carpenter, R. Janssens, I. Wiedenhoever, Argonne National Lab.
- (29) The Fragmentation of the Two-Phonon Octupole Strength in ^{208}Pb [Vetter]
 D. Cline, C. Wu, University of Rochester; M. Cromaz, A. Macchiavelli, M. Stephens, K. Vetter, Lawrence Berkeley National Lab.; R. Janssens, Argonne National Lab.
- (30) Study of the $J = 38^+ \hbar$ Heavy-Ion Resonance in ^{48}Cr [Sanders]
 V. Rauch, M. Rousseau, Université Louis Pasteur; P. Delurgio, A. Dummer, K. Farrar, G. Hackman, F. Prosser, S. Sanders, University of Kansas; R. Nouicer, University of Illinois-Chicago; A. Szanto de Toledo, Universidade de São Paulo; M. Carpenter, R. Janssens, F. Kondev, I. Wiedenhoever, A. Wuosmaa, Argonne National Lab.
- (31) Spectroscopy of $^{98}_{48}\text{Cd}^{50}$ [Clark]
 M. Devlin, D. Sarantites, Washington University; D. Jenkins, N. Kelsall, R. Wadsworth, University of York; J. Wilson, University of Copenhagen; C. Chiara, D. Fossan, T. Koike, D. LaFosse, K. Starosta, S.U.N.Y. at Stony Brook; D. Appelbe, J. Waddington, McMaster University; R. Clark, M. Cromaz, P. Fallon, G. Lane, C. Svensson, Lawrence Berkeley National Lab.; R. Janssens, D. Seweryniak, Argonne National Lab.
- (32) B(M1)-Values in the Band Crossing Region of the Strongest Shears Band in ^{197}Pb [Krücken]
 C. Beausang, J. Cooper, R. Krücken, J. Novak, Yale University; A. Dewald, G. Kemper, T. Klug, Universität zu Köln; R. Clark, Lawrence Berkeley National Lab.; I. Wiedenhoever, R. Janssens, Argonne National Lab.

- (33) Spectroscopy of Proton-Decay Links from Superdeformed Minima in Mass 60 Nuclei [Rudolph]
R. Charity, M. Devlin, F. Lerma, D. Sarantites, L. Sobotka, Washington University; H. Eberth, T. Steinhardt, Universität zu Köln; D. Balamuth, P. Hausladen, University of Pennsylvania; J. Wilson, University of Copenhagen; C. Baktash, A. Galindo-Uribarri, Oak Ridge National Lab.; C. Andreoiu, C. Fahlander, D. Rudolph, Lund University
- (34) Study of K-Forbidden Transitions in ^{178}Hf by Coulomb Excitation [Gerl]
M. Devlin, Washington University; P. Napiorkowski, J. Srebrny, Warsaw University; D. Cline, C. Wu, University of Rochester; K. Vetter, Lawrence Berkeley National Lab.; J. Gerl, C. Schlegel, H. Wollersheim, GSI, Darmstadt; R. Janssens, I. Wiedenhoever, Argonne National Lab.
- (35) Spectroscopy of Exotic, Neutron-Rich Nuclei at and above the Doubly-Closed Shell at $^{208}_{82}\text{Pb}_{126}$ [Lane]
R. Clark, G. Lane, A. Macchiavelli, K. Vetter, Lawrence Berkeley National Lab.; R. Broda, B. Fornal, Institute of Nuclear Physics; A. Byrne, G. Dracoulis, Australian National University; M. Carpenter, R. Janssens, K. Lister, I. Wiedenhoever, Argonne National Lab.
- (36) Off-Line Studies in Very Heavy Nuclei with Gammasphere [Ahmad]
J. Uusitalo, University of Jyväskylä; P. Bhattacharyya, Purdue University; P. Reiter, Ludwig Maximilians-Universität München; I. Ahmad, M. Carpenter, R. Chasman, J. Greene, R. Janssens, T. Khoo, F. Kondev, T. Lauritsen, C. Lister, D. Seweryniak, A. Sonzogni, I. Wiedenhoever, Argonne National Lab.
- (37) Dynamics of the Ternary Fission of ^{252}Cf with Gammasphere [Ramayya]
C. Beyer, J. Hwang, J. Kormicki, A. Ramayya, X. Zhang, Vanderbilt University; G. Chubaryan, Texas A & M University; W. Ma, Mississippi State University; A. Fomichev, J. Kliman, L. Krupa, A. Rodin, Joint Institute for Nuclear Research; I. Ahmad, J. Greene, R. Janssens, K. Lister, D. Seweryniak, I. Wiedenhoever, Argonne National Lab.
- (38) Superdeformation in Neutron-Rich $A \sim 70$ Nuclei [Devlin]
M. Devlin, M. Furlotti, D. Sarantites, V. Tomov, Washington University; T. Steinhardt, O. Thelen, Universität zu Köln; M. Carpenter, R. Janssens, K. Lister, D. Seweryniak, Argonne National Lab.
- (39) Spectroscopy of Neutron-Rich $50 < A < 90$ Nuclei via Fusion-Fission Reactions [Devlin]
M. Devlin, F. Lerma, D. Sarantites, Washington University; D. Cline, C. Wu, University of Rochester; S. Vincent, R. de Haan, University of Notre Dame; J. Wilson, University of Copenhagen; N. Fotiadis, Rutgers University; M. Carpenter, R. Janssens, I. Wiedenhoever, Argonne National Lab.
- (40) Proton Transfer Reactions in Actinide Nuclei: Spectroscopy Beyond Pu and Cm? [Janssens]
D. Cline, University of Rochester; S. Siem, University of Oslo; G. Hackman, University of Kansas; J. Caggiano, M. Carpenter, A. Heinz, R. Janssens, F. Kondev, T. Lauritsen, A. Sonzogni, J. Uusitalo, I. Wiedenhoever, Argonne National Lab.
- (41) High-K Isomers in Neutron-Rich $^{182,184}\text{Hf}$ Nuclei via Transfer Reactions [Chowdhury]
C. Pearson, Z. Podolya'k, P. Walker, C. Wheldon, University of Surrey; P. Chowdhury, R. D'Alarcao, I. Shestakova, University of Massachusetts, Lowell; D. Cullen, University of Liverpool
- (42) A Search for Chiral Doubling in Nuclei [Clark]
R. Clark, P. Fallon, M. Stephens, C. Svensson, Lawrence Berkeley National Lab.

- (43) Lifetimes of Exotic Bands in $^{168,169}\text{Hf}$ [Varmette]
C. Beyer, Vanderbilt University; D. Hartley, University of Tennessee; S. Siem, University of Oslo; A. Bracco, B. Million, University of Milano; G. Hagemann, B. Herskind, T. Saitoh, G. Sletten, J. Wilson, University of Copenhagen; W. Liu, W. Ma, S. Phillips, R. Piercey, J. Terry, P. Varmette, J. Winger, Mississippi State University; M. Carpenter, R. Janssens, T. Khoo, C. Lister, Argonne National Lab.
- (44) Feeding and Decay of the Doubly-Magic SDB in ^{60}Zn [Svensson]
M. Furlotti, D. Sarantites, Washington University; T. Steinhardt, O. Thelen, Universität zu Köln; W. Reviol, University of Tennessee; R. Austin, T. Rodinger, J. Waddington, McMaster University; C. Andreoiu, D. Rudolph, Lund University; R. Clark, C. Svensson, Lawrence Berkeley National Lab.; M. Carpenter, R. Janssens, T. Khoo, T. Lauritsen, Argonne National Lab.
- (45) High Spin States in ^{100}Pd : Search for 'Anti-Magnetic Rotation' [Garg]
P. Boutachkov, E. Kharraja, S. Zhu, University of Notre Dame; S. Chintalapudi, S. Ghugre, IUCDAEF-Calcutta Center; R. Janssens, Argonne National Lab.
- (46) Study of High-Spin β -Decaying States in ^{24}Mg by β - β - β Angular Correlations at Gammasphere [Wiedenhoever]
M. Devlin, D. Sarantites, L. Sobotka, Washington University; S. Siem, University of Oslo; P. Bhattacharyya, Purdue University; H. Amro, North Carolina State University; J. Caggiano, M. Carpenter, A. Heinz, R. Janssens, F. Kondev, T. Lauritsen, K. Lister, D. Seweryniak, A. Sonzogni, I. Wiedenhoever, A. Wuosmaa, Argonne National Lab.
- (47) Band Termination, Superdeformation and Complex Clusters in ^{32}S [Baktash]
M. Furlotti, D. Sarantites, V. Tomov, Washington University; C. Baktash, A. Galindo-Uribarri, A. Huerta-Hernardcz, E. Padilla-Rodal, S. Pascual-Vazquez, S. Paul, D. Radford, C. Yu, Oak Ridge National Laboratory; M. Cromaz, A. Macchiavelli, Lawrence Berkeley National Lab.; M. Lipoglavsek, Jozef Stefan Institute; M. Carpenter, D. Seweryniak, Argonne National Lab.
- (48) Landau-Zener Crossing Between the First and Second Minima in ^{131}Nd [Hartley]
D. Sarantites, Washington University; D. Balabanski, D. Hartley, W. Reviol, L. Riedinger, O. Zeidan, University of Tennessee; A. Galindo-Uribarri, Oak Ridge National Laboratory; R. Laird, M. Riley, Florida State University; F. Kondev, Argonne National Lab.
- (49) Studies of the Continuum Gamma-Ray Spectrum [Lee]
G. Lane, I. Lee, F. Stephens, M. Stephens, D. Ward, Lawrence Berkeley National Lab.; R. Janssens, M. Carpenter, Argonne National Lab.
- (50) Search for Discrete Energy Proton and Alpha-Particle Decay of Nanosecond Isomers in the ^{100}Sn Region: Spectroscopy of $^{105-107}\text{Sb}$, $^{106-107}\text{Te}$, and $^{102-104}\text{Sn}$ [Sarantites]
R. Charity, M. Furlotti, D. Sarantites, V. Tomov, Washington University; W. Reviol, University of Tennessee; D. Rudolph, Lund University; R. Clark, M. Cromaz, P. Fallon, A. Macchiavelli, Lawrence Berkeley National Lab.; M. Carpenter, D. Seweryniak, Argonne National Lab.
- (51) High-Accuracy Mass Determination of Neutron-Deficient Hg Isotopes: On-Line Commissioning of the CPT Spectrometer [Savard]
J. Schwartz, Yale University; J. Clark, J. Fingler, H. Fukutani, K. Sharma, University of Manitoba; J. Hardy, Texas A & M University; C. Boudreau, F. Buchinger, A. Cassidy, J. Crawford, S. Gulick, J. Lee, McGill University; M. Maier, Lawrence Berkeley National Lab.; D. Hofman, G. Savard, D. Seweryniak, J. Uusitalo, Argonne National Lab.
- (52) High-Accuracy Determination of the Q-Value of Superalloyed 0^+ to 0^+ Beta-Emitters with the CPT Mass Spectrometer [Savard]
J. Schwartz, Yale University; J. Clark, J. Fingler, University of Manitoba; C. Boudreau, F. Buchinger, A. Cassidy, S. Gulick, McGill University; M. Maier, Lawrence Berkeley National Lab.; J. Caggiano, H. Fukutani, A. Heinz, G. Savard, D. Seweryniak, Argonne National Lab.

- (53) Study of the Breakout from the Hot CNO Cycle to the (rp) Process via the $^{18}\text{Ne}(\text{ ,p})^{21}\text{Na}$ Reaction [Rehm]
P. Crotty, University of Chicago; B. Harss, Tu Munich; F. Borasi, R. Segel, Northwestern University; R. Janssens, C. Jiang, J. Nolen, R. Pardo, K. Rehm, J. Schiffer, A. Sonzogni, J. Uusitalo, I. Wiedenhoever, Argonne National Lab.
- (54) Measurement of the $^{17}\text{F}(\text{p, } \gamma)^{14}\text{O}$ Reaction [Harss]
A. Chen, P. Parker, Yale University; P. Crotty, University of Chicago; B. Harss, Tu Munich; J. Blackmon, M. Smith, Oak Ridge National Laboratory; F. Borasi, Northwestern University; R. Janssens, C. Jiang, R. Pardo, K. Rehm, J. Schiffer, A. Sonzogni, J. Uusitalo, I. Wiedenhoever, Argonne National Lab.
- (55) Measurement of the $^{17}\text{F}(\text{p, } \gamma)^{14}\text{O}$ and $^{17}\text{F}(\text{p,p})^{17}\text{F}$ Reactions [Harss]
P. Parker, Yale University; B. Harss, Tu Munich; R. Segel, Northwestern University; D. Rudolph, Lund University; J. Caggiano, A. Heinz, R. Janssens, C. Jiang, R. Pardo, K. Rehm, J. Schiffer, R. Siemssen, I. Wiedenhoever, Argonne National Lab.
- (56) Decay Properties of Particle-Unbound States in ^{19}Ne [Borasi]
R. Teng, University of Rochester; B. Harss, Tu Munich; F. Borasi, R. Segel, Northwestern University; M. Paul, Hebrew University of Jerusalem; J. Caggiano, A. Heinz, R. Janssens, C. Jiang, R. Pardo, K. Rehm, J. Schiffer, R. Siemssen, A. Sonzogni, J. Uusitalo, I. Wiedenhoever, A. Wuosmaa, Argonne National Lab.

b. Outside Users of ATLAS During the Period October 1, 1998 - September 30, 1999

This list includes all outside Users who were an experiment spokesperson (a), alternate spokesperson (b), student (*) or collaborator actually present at ATLAS for an experiment. An additional 110 Users listed as collaborators on the various experiment proposals were not at ATLAS in person, and thus are not represented in the list below.

- | | |
|--|---|
| (1) Australian National University
A. Byrne
M. Dasgupta
G. Dracoulis
D. Hinde
C. Morton | (7) Hebrew University of Jerusalem
M. Paul |
| (2) Chalmers University of Technology
b Ö. Skeppstedt | (8) IUCDAEF-Calcutta Center
S. Chintalapudi
S. Ghugre |
| (3) De Paul University
S. Fischer | (9) Institute of Nuclear Physics
b R. Broda
B. Fornal |
| (4) Duke University
* L. McLean | (10) Joint Institute for Nuclear Research
A. Fomichev
J. Kliman
L. Krupa
A. Rodin |
| (5) Florida State University
* R. Laird
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