

## CURRICULUM VITAE

**Andreas Stolz**  
Professor (NSCL/FRIB)

Facility for Rare Isotope Beams  
Michigan State University  
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### Education

May 2001 Ph.D. in Physics (summa cum laude),  
Technical University Munich, Garching, Germany

May 1995 Diplom in Physics,  
Technical University Munich, Garching, Germany

### Academic Positions

2021 – present Professor, Facility for Rare Isotope Beams,  
Michigan State University, East Lansing, Michigan

2008 – 2021 Associate Professor, National Superconducting Cyclotron  
Laboratory, Michigan State University, East Lansing, Michigan

2003 – 2008 Assistant Professor, National Superconducting Cyclotron  
Laboratory, Michigan State University, East Lansing, Michigan

2001 – 2003 Visiting Assistant Professor, National Superconducting Cyclotron  
Laboratory, Michigan State University, East Lansing, Michigan

1996 – 2000 several research visits at GSI, Darmstadt, Germany, for  
experiments at the fragment separator

1995 – 2000 Research Assistant, Technical University Munich

### Administrative Positions

2021 – present Rare Isotope Operations Department Manager

2008 – 2021 Department Head, Operations Department

2005 – 2008 Deputy Department Head, Operations Department

2003 – 2006 Group Leader of A1900 fragment separator group

### Awards

2001 Science award of the department for Physics and Astronomy of the  
Julius-Maximilians University Wuerzburg, Germany

**Professional Activities**

Reviewer for Physical Review C, European Physical Journal A, Nuclear Instruments and Methods A & B, Review of Scientific Instruments, Journal of Instrumentation  
Reviewer for U.S. Department of Energy SBIR/STTR grants  
Reviewer for National Science Foundation MRI grants  
Member of American Physical Society (APS) and American Association for the Advancement of Science (AAAS)

**Research Interests**

My primary research interest is centered on the production of rare isotope beams with fragment separators and the study of the structure of nuclei at the limits of existence. The fragment separator at the Facility for Rare Isotope Beams produces beams of very rare radioactive ions, some of which have not been observed before. This provides the setting to study the decay properties of the most exotic nuclei. The investigation of the limits of nuclear stability provides a key benchmark for nuclear models and is fundamental to the understanding of the nuclear forces and structure.

An additional research area is the development of particle detectors made from diamond produced by chemical vapor deposition. The special properties of diamond allow the development of radiation-hard timing and tracking detectors with excellent timing properties at very high incident particle rates.

**Administrative Responsibilities**

As the Rare Isotope Operations Department Manager I'm responsible for efficient operation of the production target, fragment separator, and beam transport lines at the Facility of Rare Isotope Beams. The goal of Operations is the timely delivery of rare-isotope beams at high facility availability in order to achieve excellent experimenter's satisfaction.

**Expert Consultation**

Qualified as an expert in Metrology (science of measurement) and Physics over 50 times in courts in Michigan, Arizona, California, Massachusetts, Minnesota, New Jersey, Vermont, and in Quebec, Canada.

## **Forensic Metrology Presentations and Publications**

“Forensic Analysis in Drugged Driving Cases”, Presentation at the Criminal Defense Attorneys of Michigan (CDMA) Fall Conference 2012, November 09, 2012, Traverse City, MI

“Measurement Uncertainty: The Foundation for Reliable Forensic Toxicology”, M.J. Nichols and A. Stolz, Inside the Minds: Understanding DUI Scientific Evidence, 2012 Edition, Thomson Reuters/Aspatore, 2012, p. 171-195

“You Can’t Test Nothing”, Presentation at the Ohio Association of Criminal Defense Lawyers (OACDL), DUI Defense Seminar, March 07-09, 2013, Columbus, OH

“Measuring Nothing – Challenging the procedures of the State Laboratory”, Geneese County Bar Association, Criminal Law Seminar, May 02-03, 2013, Flint, MI

“Measuring Nothing: Limitations of Quantitative Confirmation Analysis and the National Trend Toward Zero Tolerant Per Se THC Limits in Drivers”, A. Stolz, M.J. Nichols, J.C. Brehmer, Proceedings of the American Academy of Forensic Sciences, 66<sup>th</sup> Annual Scientific Meeting, February 17-22, 2014, Seattle, WA

“How accurate are blood and breath results? – Measurement Uncertainty”, Presentation at the National College for DUI Defense (NCDD), Science as Your Best Defense Training Seminar, November 14-15, 2014, Phoenix, AZ

“The Science Behind Blood/Breath Alcohol Measurements”, Presentation at the Michigan Association of OWI Attorneys (MIAOWIA), Fall Seminar, December 05-06, 2014, Detroit, MI

“Understanding Current Scientific Forensic Metrology”, Presentation at the Michigan Judicial Institute, Judicial Symposium for Trial Court Judges, May 05-06, 2015, Lansing, MI

“Forensic Metrology”, Presentation at the Michigan District Judges Association Conference, August 16-18, 2015, Thompsonville, MI

“Forensic Metrology – The Science Behind Reliable Measurements in Drugged Driving Cases”, Teaching Course at the National College for DUI Defense (NCDD), Science as Your Best Defense Training Seminar, November 06-07, 2015, Atlanta, GA

“Forensic Metrology – Living with Uncertainty”, Presentation at the Forensic Metrology Training Seminar for Bexar County Prosecutors, April 18-20, 2016, San Antonio, TX

“Forensic Metrology”, Presentation at the Metrology Seminar of the Association des Avocats de La Défense de Montréal, July 7-9, 2016, Montréal, Québec, Canada

“Forensic Metrology – Living with Uncertainty”, Teaching Course at the National College for DUI Defense (NCDD), Metrology 3.0: Science as Your Best Defense Seminar, November 3-4, 2016, San Diego, CA

“Forensic Metrology and Instrumental Drug Analysis”, Teaching Course at the National College for DUI Defense (NCDD), Serious Science: Blood Drug Analysis and Trial Advocacy Course, December 9-14, 2016, Arlington, TX

“Forensic Metrology – Reliable Measurements in Drugged Driving Cases”, Presentation at the Michigan Association of OWI Attorneys (MIAOWIA), Spring Seminar, May 12-13, 2017, East Lansing, MI

“Forensic Metrology and Instrumental Drug Analysis”, Teaching Course at the National College for DUI Defense (NCDD), Serious Science for Serious Lawyers: Advanced Training in Blood Drug Analysis and Trial Advocacy, June 8-13, 2018, Arlington, TX

## List of Publications

### Articles in refereed journals

A two-dimensional position sensitive microstrip gas chamber for single VUV photons,  
K. Zeitelhack, A. Stolz, B. Bauer, C. Erbe, J. Friese, R. Gernhäuser, A. Kastenmüller, P. Kienle, H.-J. Körner,  
P. Maier-Komor, M. Münch, S. Winkler,  
Nucl. Instr. Meth. A 371 (1996) 57  
[http://dx.doi.org/10.1016/0168-9002\(95\)01139-0](http://dx.doi.org/10.1016/0168-9002(95)01139-0)

HIRICH, a novel device for velocity measurement of relativistic ions,  
R. Gernhäuser, J. Friese, J. Homolka, A. Kastenmüller, P. Kienle, H.-J. Körner, M. Münch, A. Stolz, R.  
Schneider, K. Zeitelhack,  
Nucl. Instr. Meth. A 433 (1999) 217  
[http://dx.doi.org/10.1016/S0168-9002\(99\)00314-9](http://dx.doi.org/10.1016/S0168-9002(99)00314-9)

Experimental evidence for the  $^8\text{B}$  ground state configuration,  
D. Cortina-Gil, K. Markenroth, F. Attallah, T. Baumann, J. Benlliure, M. J. G. Borge, L. V. Chulkov, U. Datta  
Pramanik, J. Fernandez-Vazquez, C. Forssen, L. M. Fraile, H. Geissel, J. Gerl, F. Hammache, K. Itahashi, R.  
Janik, B. Jonson, S. Karlsson, H. Lenske, S. Mandal, M. Meister, M. Mocko, G. Münzenberg, T. Ohtsubo, A.  
Ozawa, Y. Parfenova, V. Pribora, K. Riisager, H. Scheit, R. Schneider, K. Schmidt, G. Schrieder, H. Simon, B.  
Sitar, A. Stolz, P. Strmen, K. Sümmerer, I. Szarka, S. Wan, H. Weick, M. Zhukov,  
Phys. Lett. B 529 (2002) 36  
[http://dx.doi.org/10.1016/S0370-2693\(02\)01245-5](http://dx.doi.org/10.1016/S0370-2693(02)01245-5)

Projectile fragmentation of  $^{112}\text{Sn}$  at  $E_{\text{lab}} = 1 \text{ A GeV}$ ,  
A. Stolz, T. Faestermann, J. Friese, P. Kienle, H.-J. Körner, M. Münch, R. Schneider, E. Wefers, K. Zeitelhack,  
K. Sümmerer, H. Geissel, J. Gerl, G. Münzenberg, C. Schlegel, R. S. Simon, H. Weick, M. Hellström, M. N.  
Mineva, P. Thirolf,  
Phys. Rev. C 65 (2002) 064603  
<http://dx.doi.org/10.1103/PhysRevC.65.064603>

Decay studies of  $N \approx Z$  nuclei from  $^{75}\text{Sr}$  to  $^{102}\text{Sn}$ ,  
T. Faestermann, R. Schneider, A. Stolz, K. Sümmerer, E. Wefers, J. Friese, H. Geissel, M. Hellström, P. Kienle,  
H.-J. Körner, M. Mineva, M. Münch, G. Münzenberg, C. Schlegel, K. Schmidt, P. Thirolf, H. Weick, K.  
Zeitelhack,  
Eur. Phys. J. A 15, 185 (2002)  
<http://dx.doi.org/10.1140/epja/i2001-10251-7>

Beta decay studies of nuclei near  $^{32}\text{Mg}$ : Investigating the  $\nu(f7/2)-(d3/2)$  inversion at the  $N = 20$  shell closure,  
A. C. Morton, P. F. Mantica, B. A. Brown, A. D. Davies, D. E. Groh, P. T. Hosmer, S. N. Liddick, J. I.  
Prisciandaro, H. Schatz, M. Steiner, A. Stolz,  
Phys. Lett. 544B, 274 (2002)  
[http://dx.doi.org/10.1016/S0370-2693\(02\)02544-3](http://dx.doi.org/10.1016/S0370-2693(02)02544-3)

Structure of  $^{52,54}\text{Ti}$  and shell closures in neutron-rich nuclei above  $^{48}\text{Ca}$ ,  
R. V. F. Janssens, B. Fornal, P.F. Mantica, B.A. Brown, R. Broda, P. Bhattacharyya, M. P. Carpenter, M.  
Cinausero, P. J. Daly, A. D. Davies, T. Glasmacher, Z. W. Grabowski, D. E. Groh, M. Honma, F. G. Kondev,  
W. Krolas, T. Lauritsen, S. N. Liddick, S. Lunardi, N. Marginean, T. Mizusaki, D. J. Morrissey, A. C. Morton,  
W. F. Mueller, T. Otsuka, T. Pawlat, D. Seweryniak, H. Schatz, A. Stolz, S. L. Tabor, C. A. Ur, G. Viesti, I.  
Wiedenhöver, J. Wrzesinski,  
Phys. Lett. 546B, 55 (2002)  
[http://dx.doi.org/10.1016/S0370-2693\(02\)02682-5](http://dx.doi.org/10.1016/S0370-2693(02)02682-5)

Beta decay studies of the neutron-rich  $^{56-58}\text{V}$  isotopes,  
P. F. Mantica, A. C. Morton, B. A. Brown, A. D. Davies, T. Glasmacher, D. E. Groh, S. N. Liddick, D. J.  
Morrissey, W. F. Mueller, H. Schatz, A. Stolz, S. L. Tabor, M. Honma, M. Horoi, T. Otsuka,

Phys. Rev. C 67, 014311 (2003)  
<http://dx.doi.org/10.1103/PhysRevC.67.014311>

First search for  $^{16}\text{Be}$ ,  
T. Baumann, N. Frank, B. A. Luther, D. J. Morrissey, J. P. Seitz, B. M. Sherrill, M. Steiner, J. Stetson, A. Stolz, M. Thoennessen, I. Wiedenhöver,  
Phys. Rev. C 67, 061303 (2003)  
<http://dx.doi.org/10.1103/PhysRevC.67.061303>

Spectroscopic factors measured in inclusive proton-knockout reactions on  $^8\text{B}$  and  $^9\text{C}$  at intermediate energies,  
J. Enders, T. Baumann, B. A. Brown, N. H. Frank, P. G. Hansen, P. R. Heckman, B. M. Sherrill, A. Stolz, M. Thoennessen, J. A. Tostevin, E. J. Tryggestad, S. Typel, M. S. Wallace,  
Phys. Rev. C 67, 064301 (2003)  
<http://dx.doi.org/10.1103/PhysRevC.67.064301>

First two energy levels in  $^{15}\text{F}$ ,  
W. A. Peters, T. Baumann, D. Bazin, B. A. Brown, R. R. C. Clement, N. Frank, P. Heckman, B. A. Luther, F. Nunes, J. Seitz, A. Stolz, M. Thoennessen, E. Tryggestad,  
Phys. Rev. C 68, 034607 (2003)  
<http://dx.doi.org/10.1103/PhysRevC.68.034607>

Spin Polarization of  $^{37}\text{K}$  Produced in a Single-Proton Pickup Reaction at Intermediate Energies,  
D. E. Groh, P. F. Mantica, A. E. Stuchbery, A. Stolz, T. J. Mertzimekis, W. F. Rogers, A. D. Davies, S. N. Liddick, B. E. Tomlin,  
Phys. Rev. Lett. 90, 202502 (2003)  
<http://dx.doi.org/10.1103/PhysRevLett.90.202502>

Beta-decay properties of  $^{55,56}\text{Ti}$ ,  
P. F. Mantica, B. A. Brown, A. D. Davies, T. Glasmacher, D. E. Groh, M. Horoi, S. N. Liddick, D. J. Morrissey, A. C. Morton, W. F. Mueller, H. Schatz, A. Stolz, S. L. Tabor,  
Phys. Rev. C 68, 044311 (2003)  
<http://dx.doi.org/10.1103/PhysRevC.68.044311>

Single proton knock-out reactions from  $^{24,25,26}\text{F}$ ,  
M. Thoennessen, T. Baumann, B. A. Brown, J. Enders, N. Frank, P. G. Hansen, P. Heckman, B. A. Luther, J. Seitz, A. Stolz, E. Tryggestad,  
Phys. Rev. C 68, 044318 (2003)  
<http://dx.doi.org/10.1103/PhysRevC.68.044318>

Half-life limit of  $^{19}\text{Mg}$ ,  
N. Frank, T. Baumann, D. Bazin, R. R. C. Clement, M. W. Cooper, P. Heckman, W. A. Peters, A. Stolz, M. Thoennessen, M. S. Wallace,  
Phys. Rev. C 68, 054309 (2003)  
<http://dx.doi.org/10.1103/PhysRevC.68.054309>

Nuclear and Coulomb breakup of  $^8\text{B}$ ,  
D. Cortina-Gil, J. Fernandez-Vazquez, F. Attallah, T. Baumann, J. Benlliure, M. J. G. Borge, L. Chulkov, C. Forssen, L. M. Fraile, H. Geissel, J. Gerl, K. Itahashi, R. Janik, B. Jonson, S. Karlsson, H. Lenske, S. Mandal, K. Markenroth, M. Meister, M. Mocko, G. Münzenberg, T. Ohtsubo, A. Ozawa, Yu. Parfenova, V. Pribora, A. Richter, K. Riisager, R. Schneider, H. Scheit, G. Schrieder, N. Shulgina, H. Simon, B. Sitar, A. Stolz, P. Strmen, K. Stümmerer, I. Szarka, S. Wan, H. Weick, M. V. Zhukov,  
Nucl. Phys. A720, 3 (2003)  
[http://dx.doi.org/10.1016/S0375-9474\(03\)00671-7](http://dx.doi.org/10.1016/S0375-9474(03)00671-7)

High-energy breakup of  $^8\text{B}$ ,  
M. Meister, D. Cortina-Gil, J. Fernandez-Vazquez, K. Markenroth, F. Attallah, T. Baumann, J. Benlliure, M. J. G. Borge, L. V. Chulkov, U. Datta Pramanik, C. Forssen, L. M. Fraile, H. Geissel, J. Gerl, F. Hammache, K. Itahashi, R. Janik, B. Jonson, S. Karlsson, H. Lenske, S. Mandal, M. Mocko, G. Münzenberg, T. Ohtsubo, A.

Ozawa, Y. Parfenova, V. Pribora, K. Riisager, H. Scheit, R. Schneider, K. Schmidt, G. Schrieder, H. Simon, B. Sitar, A. Stolz, P. Strmen, K. Sümmerer, I. Szarka, S. Wan, H. Weick, M. Zhukov, Nucl. Phys. A718, 431c (2003)  
[http://dx.doi.org/10.1016/S0375-9474\(03\)00822-4](http://dx.doi.org/10.1016/S0375-9474(03)00822-4)

Investigation of neutron-rich oxygen and fluorine isotopes, M. Thoennessen, T. Baumann, J. Enders, N. H. Frank, P. Heckman, J. P. Seitz, A. Stolz, E. Tryggestad, Nucl. Phys. A722, 61c (2003)  
[http://dx.doi.org/10.1016/S0375-9474\(03\)01336-8](http://dx.doi.org/10.1016/S0375-9474(03)01336-8)

Shell Structure of the Near-Dripline Nucleus  $^{23}\text{O}$ , D. Cortina-Gil, J. Fernandez-Vazquez, T. Aumann, T. Baumann, J. Benlliure, M.J.G. Borge, L.V. Chulkov, U. Datta Pramanik, C. Forssen, L.M. Fraile, H. Geissel, J. Gerl, F. Hammache, K. Itahashi, R. Janik, B. Jonson, S. Mandal, K. Markenroth, M. Meister, M. Mocko, G. Münzenberg, T. Ohtsubo, A. Ozawa, Y. Prezado, V. Pribora, K. Riisager, H. Scheit, R. Schneider, G. Schrieder, H. Simon, B. Sitar, A. Stolz, P. Strmen, K. Sümmerer, I. Szarka, H. Weick, Phys. Rev. Lett. 93, 062501 (2004)  
<http://dx.doi.org/10.1103/PhysRevLett.93.062501>

Lowest Excitations in  $^{56}\text{Ti}$  and the Predicted  $N=34$  Shell Closure, S. N. Liddick, P. F. Mantica, R. V. F. Janssens, R. Broda, B. A. Brown, M. P. Carpenter, B. Fornal, M. Honma, T. Mizusaki, A. C. Morton, W.F. Mueller, T. Otsuka, J. Pavan, A. Stolz, S. L. Tabor, B. E. Tomlin, M. Wiedeking, Phys. Rev. Lett. 92, 072502 (2004)  
<http://dx.doi.org/10.1103/PhysRevLett.92.072502>

Probing the sustainability of the  $N=82$  and  $Z=50$  shell closures for neutron-rich nuclides: Decay of  $^{120}\text{Rh75}$  to levels of  $^{120}\text{Pd74}$ , W. B. Walters, B. E. Tomlin, P. F. Mantica, B. A. Brown, J. Rikovska Stone, A. D. Davies, A. Estrade, P. T. Hosmer, N. Hoteling, S. N. Liddick, T. J. Mertzimekis, F. Montes, A. C. Morton, W. F. Mueller, M. Ouellette, E. Pellegrini, P. Santi, D. Seweryniak, H. Schatz, J. Shergur, A. Stolz, Phys. Rev. C 70, 034314 (2004)  
<http://dx.doi.org/10.1103/PhysRevC.70.034314>

Development of shell closures at  $N=32,34$ . I. Beta decay of neutron-rich Sc isotopes, S. N. Liddick, P. F. Mantica, R. Broda, B. A. Brown, M. P. Carpenter, A. D. Davies, B. Fornal, T. Glasmacher, D. E. Groh, M. Honma, M. Horoi, R. V. F. Janssens, T. Mizusaki, D. J. Morrissey, A. C. Morton, W. F. Mueller, T. Otsuka, J. Pavan, H. Schatz, A. Stolz, S. L. Tabor, B. E. Tomlin, M. Wiedeking, Phys. Rev. C 70, 064303 (2004)  
<http://dx.doi.org/10.1103/PhysRevC.70.064303>

Performance of the High-Energy Single-Event Effects Test Facility (SEETF) at Michigan State University's National Superconducting Cyclotron Laboratory (NSCL), Ladbury, R., Reed, R.A., Marshall, P., LaBel, K.A., Anantaraman, R., Fox, R., Sanderson, D.P., Stolz, A., Yurkon, J., Zeller, A.F., Stetson, J.W., IEEE Transactions on Nuclear Science, 51 (6 II), pp. 3664-3668 (2004)  
<http://dx.doi.org/10.1109/TNS.2004.839300>

Structure of neutron-rich oxygen isotopes, D. Cortina-Gil, J. Fernandez-Vazquez, T. Aumann, T. Baumann, J. Benlliure, M. J. G. Borge, L. V. Chulkov, U. Datta Pramanik, C. Forssen, L. M. Fraile, H. Geissel, J. Gerl, F. Hammache, K. Itahashi, R. Janik, B. Jonson, S. Mandal, K. Markenroth, M. Meister, M. Mocko, G. Münzenberg, T. Ohtsubo, A. Ozawa, Y. Prezado, K. Riisager, H. Scheit, R. Schneider, G. Schrieder, H. Simon, B. Sitar, A. Stolz, P. Strmen, K. Sümmerer, I. Szarka, H. Weick, J. Phys. (London) G31, S1629 (2005)  
<http://dx.doi.org/10.1088/0954-3899/31/10/045>

Half-Life of the Doubly Magic r-Process Nucleus  $^{78}\text{Ni}$ ,

P. T. Hosmer, H. Schatz, A. Aprahamian, O. Arndt, R. R. C. Clement, A. Estrade, K. -L. Kratz, S. N. Liddick, P. F. Mantica, W. F. Mueller, F. Montes, A. C. Morton, M. Ouellette, E. Pellegrini, B. Pfeiffer, P. Reeder, P. Santi, M. Steiner, A. Stolz, B. E. Tomlin, W. B. Walters, A. Wöhr,  
Phys. Rev. Lett. 94, 112501 (2005)  
<http://dx.doi.org/10.1103/PhysRevLett.94.112501>

Beta-decay of odd-A  $^{57}\text{Ti}$  and  $^{59}\text{V}$ ,

S. N. Liddick, P. F. Mantica, R. Broda, B. A. Brown, M. P. Carpenter, A. D. Davies, B. Fornal, M. Horoi, R. V. F. Janssens, A. C. Morton, W. F. Mueller, J. Pavan, H. Schatz, A. Stolz, S. L. Tabor, B. E. Tomlin, M. Wiedeking,  
Phys. Rev. C 72, 054321 (2005)  
<http://dx.doi.org/10.1103/PhysRevC.72.054321>

Low energy structure of even-even Ni isotopes close to  $^{78}\text{Ni}$ ,

C. Mazzocchi, R. Grzywacz, J. C. Batchelder, C. R. Bingham, D. Fong, J. H. Hamilton, J. K. Hwang, M. Karny, W. Królas, S. N. Liddick, A. F. Lisetskiy, A. C. Morton, P. F. Mantica, W. F. Mueller, K. P. Rykaczewski, M. Steiner, A. Stolz, J. A. Winger,  
Phys. Lett. B 622, 45 (2005)  
<http://dx.doi.org/10.1016/j.physletb.2005.07.006>

First observation of  $^{60}\text{Ge}$  and  $^{64}\text{Se}$ ,

A. Stolz, T. Baumann, N. H. Frank, T. N. Ginter, G. W. Hitt, E. Kwan, M. Mocko, W. Peters, A. Schiller, C. S. Sumithrarachchi, M. Thoennessen,  
Phys. Lett. B 627, 32 (2005)  
<http://dx.doi.org/10.1016/j.physletb.2005.08.130>

$^{29}\text{Na}$ : Defining the Edge of the Island of Inversion for  $Z = 11$ ,

V. Tripathi, S. L. Tabor, P. F. Mantica, C. R. Hoffman, M. Wiedeking, A. D. Davies, S. N. Liddick, W. F. Mueller, T. Otsuka, A. Stolz, B. E. Tomlin, Y. Utsuno, A. Volya,  
Phys. Rev. Lett. 94, 162501 (2005)  
<http://dx.doi.org/10.1103/PhysRevLett.94.162501>

Spectroscopy of  $^{25}\text{Ne}$  and the  $N = 16$  magic number,

S. W. Padgett, V. Tripathi, S. L. Tabor, P. F. Mantica, C. R. Hoffman, M. Wiedeking, A. D. Davies, S. N. Liddick, W. F. Mueller, A. Stolz, B. E. Tomlin,  
Phys. Rev. C 72, 064330 (2005)  
<http://dx.doi.org/10.1103/PhysRevC.72.064330>

Application of the Time of Flight Technique for Lifetime Measurements with Relativistic Beams of Heavy Nuclei,

A. Chester, P. Adrich, A. Becerril, D. Bazin, C. M. Campbell, J. M. Cook, D.-C. Dinca, W. F. Mueller, D. Miller, V. Moeller, R. P. Norris, M. Portillo, K. Starosta, A. Stolz, J. R. Terry, H. Zwahlen, C. Vaman, A. Dewald,  
Nucl. Instr. Meth. A 562 (2006) 230  
<http://dx.doi.org/10.1016/j.nima.2006.02.182>

Systematics of isomeric configurations in  $N=77$  odd- $Z$  isotones near the proton drip line,

M. N. Tantawy, C. R. Bingham, K. P. Rykaczewski, J. C. Batchelder, W. Królas, M. Danchev, D. Fong, T. N. Ginter, C. J. Gross, R. Grzywacz, K. Hagino, J. H. Hamilton, D. J. Hartley, M. Karny, K. Li, C. Mazzocchi, A. Piechaczek, A. V. Ramayya, K. Rykaczewski, D. Shapira, A. Stolz, J. A. Winger, C.-H. Yu, E. F. Zganjar,  
Phys. Rev. C 73, 024316 (2006)  
<http://dx.doi.org/10.1103/PhysRevC.73.024316>

Heteroepitaxial diamond detectors for heavy ion beam tracking,

A. Stolz, M. Behravan, M. Regmi and B. Golding,  
Diamond and Related Materials 15, 807 (2006)  
<http://dx.doi.org/10.1016/j.diamond.2005.12.019>



Development of a secondary triton beam from primary  $^{16,18}\text{O}$  beams for  $(t, ^3\text{He})$  experiments at intermediate energies,

G. W. Hitt, S. M. Austin, D. Bazin, A. L. Cole, J. Dietrich, A. Gade, M. E. Howard, S. D. Reitzner, B. M. Sherrill, C. Simenel, E. E. Smith, J. Stetson, A. Stolz, R. G. T. Zegers,  
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### Selected Conference proceedings

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Radioactive ion beams in the region of  $^{100}\text{Sn}$  and  $^{78}\text{Ni}$  at the NSCL,  
A. Stolz, A. Estrade, A.D. Davies, T. N. Ginter, P. T. Hosmer, E. Kwan, S. N. Liddick, P. F. Mantica, T. J. Mertzimekis, F. A. Montes, D. J. Morrissey, A. C. Morton, M. Ouellette, E. Pellegrini, P. Santi, H. Schatz, M. Steiner, A. E. Stuchbery, B. E. Tomlin, W. B. Walters, A. Wöhr, O. Arndt, K.-L. Kratz, B. Pfeiffer, P. Reeder,  
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Discovery of  $^{60}\text{Ge}$  and  $^{64}\text{Se}$   
A. Stolz, T. Baumann, N. H. Frank, T. N. Ginter, G. W. Hitt, E. Kwan, M. Mocko, W. Peters, A. Schiller, C. S. Sumithrarachchi, M. Thoennessen,  
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Production of rare isotope beams with the NSCL fragment separator,  
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New Developments and Capabilities at the Coupled Cyclotron Facility at Michigan State University,  
A. Stolz, G. Bollen, A. Lapierre, D. Leitner, D. J. Morrissey, S. Schwarz, C. Sumithrarachchi, W. Wittmer,  
20<sup>th</sup> International Conference on Cyclotrons and their Applications, September 16-20, 2013, Vancouver, Canada  
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Measuring Nothing: Limitations of Quantitative Confirmation Analysis and the National Trend Toward Zero  
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A. Stolz, M. J. Nichols, J. C. Brehmer,  
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Seattle, WA  
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Swift Heavy Ion Irradiation Capabilities at the National Superconducting Cyclotron Laboratory at Michigan  
State University,  
A. Stolz, G. Bollen, D. Leitner, W. Mittig, F. Pellemoine, R. Ronningen, M. Steiner,  
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### **Invited Talks**

Radioactive Ion Beams in the Region of <sup>100</sup>Sn and <sup>78</sup>Ni at the NSCL,  
The Sixth International Conference on Radioactive Nuclear Beams RNB6, 22 – 26 September 2003, Argonne,  
Illinois

Production of Rare Isotope Beams with the NSCL Fragment Separator  
CAARI 2004: 18th International Conference on the Application of Accelerators in Research and Industry,  
October 10-15, 2004, Ft. Worth, Texas

First Observation of <sup>60</sup>Ge and <sup>64</sup>Se  
DNP04: Fall Meeting of the Nuclear Physics Division of the APS, October 27-30, 2004, Chicago, Illinois

Exploring the driplines: First Observation of <sup>60</sup>Ge and <sup>64</sup>Se  
DPG 2005: 69. Annual Meeting of the German Physical Society, March 4-9, 2005, Berlin, Germany

Discovery of new neutron-rich magnesium, aluminum, and silicon isotopes at the NSCL  
Fourth International Conference on Fission and Properties of Neutron-Rich Nuclei, November 11-17, 2007,  
Sanibel Island, Florida

New Developments and Capabilities at the Coupled Cyclotron Facility at Michigan State University  
20<sup>th</sup> International Conference on Cyclotrons and their Applications, September 16-20, 2013, Vancouver, Canada

### **Seminars and Colloquia**

Decay Spectroscopy of <sup>100</sup>Sn  
August 8, 1998, Nuclear Physics Seminar, Argonne National Laboratory, Argonne, Illinois.

Gamow-Teller Decay of <sup>100</sup>Sn, <sup>102</sup>Sn and <sup>98</sup>Cd  
June 21, 2000, Nuclear Physics Seminar, Physik-Department E12, Technische Universität München, Garching,  
Germany

Decay studies of N=Z nuclei from <sup>78</sup>Y to <sup>102</sup>Sn  
October 16, 2000, Nuclear Physics Seminar, National Superconducting Cyclotron Laboratory, Michigan State  
University, East Lansing, Michigan



Investigation of the Gamow-Teller decay of  $^{100}\text{Sn}$  und  $^{102}\text{Sn}$

January 18, 2001, Nuclear Physics Seminar, Mayer-Leibnitz Laboratory, Technische Universität and Universität München, Garching, Germany

Investigation of the Gamov-Teller strength near the doubly-magic nucleus  $^{100}\text{Sn}$

February 6, 2001, Nuclear Physics Seminar KP2, GSI, Darmstadt, Germany

First Observation of  $^{60}\text{Ge}$  and  $^{64}\text{Se}$

January 12<sup>th</sup>, 2005, Nuclear Physics Seminar, National Superconducting Cyclotron Laboratory, Michigan State University, East Lansing, Michigan

Development of diamond detectors for heavy ion beam tracking

April 22<sup>nd</sup>, 2010, CNS seminar, Center for Nuclear Study, University of Tokyo, Japan

Diamond detectors for relativistic heavy ions

March 18<sup>th</sup>, 2014, Cyclotron Colloquium, Cyclotron Institute, Texas A&M University, College Station, Texas

### **Other publications**

Development of a two-dimensional position sensitive micro strip gas counter (language: German; original title: Entwicklung eines zweidimensional ortsempfindlichen Mikrostreifen-Gaszählers), Diploma thesis, Technische Universität München, 1995

Investigation of the Gamow-Teller decay in the vicinity of  $^{100}\text{Sn}$ , (language: German; original title: Untersuchung des Gamov-Teller-Zerfalls in der Nachbarschaft von  $^{100}\text{Sn}$ ), Ph.D. thesis, Technische Universität München, 2001

Measurement Uncertainty: The Foundation for Reliable Forensic Toxicology,  
M.J. Nichols and A. Stolz,

Inside the Minds: Understanding DUI Scientific Evidence, 2012 Edition, Thomson Reuters/Aspatore, 2012, p. 171-195