

# Curriculum Vitae

**Grigory Rogachev**

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## Contact Information

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## Education

- PhD National Research Centre “Kurchatov Institute”, Moscow, Russia 1999  
 experimental nuclear physics
- MS National Research Nuclear University “MEPhI”, Moscow, Russia 1996  
 experimental nuclear physics

## Professional Experience

- |                               |  |                       |
|-------------------------------|--|-----------------------|
| Professor and Head            | Department of Physics & Astronomy<br>and Cyclotron Institute, College of Science<br>Texas A&M University, College Station, TX, USA | May 2018 - present    |
| Professor and<br>Interim Head | Department of Physics & Astronomy<br>and Cyclotron Institute, College of Science<br>Texas A&M University, College Station, TX, USA | Dec 2017 - April 2018 |
| Professor                     | Department of Physics & Astronomy<br>and Cyclotron Institute, College of Science<br>Texas A&M University, College Station, TX, USA | Sep 2013 - Nov 2017   |
| Associate Professor           | Department of Physics, College of Arts and Sciences<br>Florida State University, Tallahassee, FL, USA.                             | Aug 2010 - Aug 2013   |
| Visiting Professor            | National Superconducting Cyclotron Laboratory<br>Michigan State University, East Lansing, MI, USA.                                 | Aug 2012 - Aug 2013   |
| Assistant Professor           | Department of Physics, College of Arts and Sciences<br>Florida State University, Tallahassee, FL, USA.                             | Aug 2004 - Aug 2010   |

Res. Assistant Prof.	Department of Physics, College of Science University of Notre Dame, Notre Dame, IN, USA.	Mar 2003 - Jul 2004
Postdoc. Res. Assoc.	Department of Physics, College of Science University of Notre Dame, Notre Dame, IN, USA.	Mar 2000 - Feb 2003
Junior Res. Assoc.	National Research Centre “Kurchatov Institute” Moscow, Russia.	Dec 1999 - Feb 2000

## Honors and Awards

- Kurchatov Prize. RRC “Kurchatov Institute”. (1998)
- First Year Assistant Professor Award, Florida State University. (2005)
- COFRS CRC Summer salary Award, Florida State University. (2008)

## Fellowships

- Fellowship of *RRC “Kurchatov Institute”* for “Young researchers”. 1997-1999.
- Fellowship of CIMO (Center of International MObility) for research activity in Finland; 1996.

# Research

## Research Agenda

I am leading a group that is conducting research in the following areas of nuclear science:

- Structure of exotic nuclei
- Clustering phenomena
- Evolution of nuclear structure with increasing imbalance between protons and neutrons
- Nuclear reactions with rare isotope beams
- Origin of chemical elements in the Universe
- Nuclear aspects of quiescent and explosive stellar evolution
- Search for physics beyond the Standard Model
- Modern instruments and methods in experimental nuclear physics
- Security applications

## Refereed Publications

- Phys. Rev. Lett. **122**, 182701 (2019);  
N. Rijal, I. Wiedenhoever, J.C. Blackmon, A. Anastasiou, L.T. Baby, D.D. Caussyn, P. Hoflich, K.W. Kemper, E. Koshchiy, **G.V. Rogachev**. “Measurement of  $d+{}^7\text{Be}$  Cross Sections for Big-Bang Nucleosynthesis.”
- Phys. Rev. C **97**, 014313 (2018);  
M.L. Avila, L.T. Baby, J. Belarge, N. Keeley, K.W. Kemper, E. Koshchiy, A.N. Kuchera, **G.V. Rogachev**, K. Rusek, and D. Santiago-Gonzalez. “Sub-Coulomb  ${}^3\text{He}$  transfer and its use to extract three-particle asymptotic normalization coefficients.”
- Phys. Rev. C **96**, 045811 (2017);  
A.M. Mukhamedzhanov and **G.V. Rogachev**. “Radiative capture reactions via indirect methods.”
- Phys. Rev. C **96**, 024616 (2017);  
E.F. Aguilera, E. Martinez-Quiroz, P. Amador-Valenzuela, D. Lizcano, and A. Garcia-Flores, J.J. Kolata, A. Roberts, **G.V. Rogachev**, and G.F. Peaslee, V. Guimaraes, F.D. Bechetti, A. Villano, M Ojaruega, Y. Chen, H. Jiang, M. Febraro, P.A. DeYoung, T.L. Belyaeva. “Sub-barrier fusion of weakly-bound  ${}^6\text{Li}$  with  ${}^{58}\text{Ni}$ .”
- Nucl. Inst. Meth. in Phys. Res. Sec. A. **870**, 1 (2017);  
E. Koshchiy, J.C. Blackmon, **G.V. Rogachev**, I. Wiedenhoever, L. Baby, P. Barber, D.W. Bardayan, J. Belarge, D. Caussyn, E.D. Johnson, K. Kemper, A.N. Kuchera, L.E. Linhardt, K.T. Macon, M. Matoš, B.S. Rasco, D. Santiago-Gonzalez. “ANASEN: the Array for Nuclear Astrophysics and Structure with Exotic Nuclei”.

- Phys. Rev. C **96**, 014322 (2017);  
D.K. Nauruzbayev, V.Z. Goldberg, A.K. Nurmukhanbetova, M.S. Golovkov, A. Volya, **G.V. Rogachev**, and R.E. Tribble. “Structure of  $^{20}\text{Ne}$  states in the resonance  $^{16}\text{O}+\alpha$  scattering.”
- Nucl. Inst. Meth. in Phys. Res. A **853**, 53 (2017);  
G. Agnolet, W. Baker, D. Barker, R. Beck, T.J. Carroll, J. Cesar, P. Cushman, J.B. Dent, S. De Rijck, B. Dutta, W. Flanagan, M. Fritts, Y. Gao, R. Harris, C.C. Hays, V. Iyer, A. Jastram, F. Kadribasic, A. Kennedy, A. Kubik, I. Ogawa, K. Lang, R. Mahapatra, V. Mandic, R.D. Martin, N. Mast, S. McDeavitt, N. Mirabolfathi, B. Mohanty, K. Nakajima, J. Newhouse, J.L. Newstead, D. Phan, M. Proga, A. Roberts, **G. Rogachev**, R. Salazar, J. Sander, K. Senapati, M. Shimada, L. Strigari, Y. Tamagawa, W. Teizer, J.I.C. Vermaak, A.N. Villano, J. Walker, B. Webb, Z. Wetzell, S.A. Yadavalli. “Background Studies for the MINER Coherent Neutrino Scattering Reactor Experiment.”
- Phys. Lett. B **769**, 62 (2017);  
J. Hooker, **G.V. Rogachev**, V.Z. Goldberg, E. Koshchiiy, B.T. Roeder, H. Jayatissa, C. Hunt, C. Magana, S. Upadhyayula, E. Uberseder, A. Saastamoinen. “Structure of  $^{10}\text{N}$  in  $^9\text{C}+p$  resonance scattering.”
- Prog. in Part. and Nucl. Phys. **94**, 1 (2017);  
A. Arcones, D. Bardayan, T. Beers, L. Bernstein, J. Blackmon, B. Messer, B. Brown, E. Brown, C. Brune, A. Champagne, A. Chieffi, A.J. Couture, P. Danielewicz, R. Diehl, M. El-Eid, J.E. Escher, B. Fields, C. Frohlich, F. Herwig, W. Hix, C. Iliadis, W. G. Lynch, G.C. McLaughlin, B.S. Meyer, A. Mezzacappa, F. Nunes, B. W. O’Shea, M. Prakash, B. Pritychenko, S. Reddy, E. Rehm, **G. Rogachev**, R.E. Rutledge, H. Schatz, M.S. Smith, I. H. Stairs, A. W. Steiner, T. E. Strohmayer, F.X. Timmes, D.M. Townsley, M. Wiescher, R.G.T. Zegers, M. Zingale. “White paper on nuclear astrophysics and low energy nuclear physics Part 1: Nuclear astrophysics.”
- Nucl. Inst. Meth. in Phys. Res. Sec. A **847**, 125 (2017);  
A.K. Nurmukhanbetova, V.Z. Goldberg, D.K. Nauruzbayev, **G.V. Rogachev**, M.S. Golovkov, N.A. Mynbayev, S. Artemov, A. Karakhodjaev, K. Kuterbekov, A. Rakhymzhanov, Zh. Berdibek, I. Ivanov, A. Tikhonov, V.I. Zherebchevsky, S. Yu. Torilov, R.E. Tribble. “Implementation of TTIK method and time of flight for resonance reaction studies at heavy ion accelerator DC-60.”
- Phys. Lett. B **754**, 323 (2016);  
E. Uberseder, **G.V. Rogachev**, V.Z. Goldberg, E. Koshchiiy, B.T. Roeder, M. Alcorta, G. Chubarian, B. Davids, C. Fu, J. Hooker, H. Jayatissa, D. Melconian and R.E. Tribble. “Nuclear structure beyond the neutron drip line: The lowest energy states in  $^9\text{He}$  via their  $T=5/2$  isobaric analogs in  $^9\text{Li}$ ”.
- Phys. Rev. Lett. **114**, 071101 (2015);  
M.L. Avila, **G.V. Rogachev**, E. Koshchiiy, L.T. Baby, J. Belarge, K.W. Kemper, A.N. Kuchera, A.M. Mukhamedzhanov, D. Santiago-Gonzalez and E. Uberseder. “Constraining the 6.05 MeV  $0^+$  and 6.13 MeV  $3^-$  Cascade Transitions in the  $^{12}\text{C}(\alpha,\gamma)^{16}\text{O}$ ”

- Reaction Using the Asymptotic Normalization Coefficients”; *Phys. Rev. Lett.* **114**, 071101 (2015).
- *Phys. Rev. C* **91**, 048801 (2015);  
M.L. Avila, **G.V. Rogachev**, E. Koshchiy, L.T. Baby, J. Belarge, K.W. Kemper, A.N. Kuchera and D. Santiago-Gonzalez. “New measurement of the alpha asymptotic normalization coefficient of the  $1/2^+$  state in  $^{17}\text{O}$  at 6.356 MeV that dominates the  $^{13}\text{C}(\alpha,n)^{16}\text{O}$  reaction rate at temperatures relevant for the s-process”.
  - *Phys. Rev. C* **90**, 024327 (2014);  
M.L. Avila, **G.V. Rogachev**, V.Z. Goldberg, E.D. Johnson, K.W. Kemper, Y.M. Tchuvil’sky and A.S. Volya. “ $\alpha$ -cluster structure of  $^{18}\text{O}$ ”.
  - *Phys. Rev. C* **90**, 042801 (2014);  
M.L. Avila, **G.V. Rogachev**, E. Koshchiy, L.T. Baby, J. Belarge, K.W. Kemper, A.N. Kuchera and D. Santiago-Gonzalez. “ $\alpha$ -Cluster Asymptotic Normalization Coefficients for Nuclear Astrophysics”.
  - *Phys. Rev. C* **90**, 014616 (2014);  
E. Martinez-Quiroz, E.F. Aguilera, D. Lizcano, P. Amador-Valenzuela, H. Garcia-Martinez, J.J. Kolata, A. Roberts, L.O. Lamm, **G. Rogachev**, V. Guimaraes, F.D. Becchetti, A. Villano, M. Ojaruega, M. Febraro, Y. Chen, H. Jiang, P.A. DeYoung and G.F. Peaslee. “Near- and sub-barrier fusion of the Be-7+Ni-58 system”.
  - *J. of Exp. and Theor. Phys.* **119**, 663 (2014);  
N.A. Mynbayev, A.K. Nurmukhanbetova, V.Z. Gol’dberg, M.S. Golovkov, **G.V. Rogachev**, V.N. Dzyubin, M.V. Koloberdin, I.A. Ivanov and R.E. Tribble. “Study of the excitation function for the  $^{13}\text{C} + ^4\text{He}$  elastic scattering with the thick-target inverse kinematics method”.
  - *Astrophys. J.* **777**, 143 (2013);  
M. La Cognata, C. Spitaleri, O. Trippella, G.G. Kiss, **G.V. Rogachev**, A.M. Mukhamedzhanov, M. Avila, G.L. Guardo, E. Koshchiy, A. Kuchera, L. Lamia, S.M.R. Puglia, S. Romano, D. Santiago and R. Sparta. “On the measurement of the  $^{13}\text{C}(\alpha,n)^{16}\text{O}$  s-factor at negative energies and its influence on the s-process”.
  - *Phys. Rev. C* **87**, 054617 (2013);  
J.P. Mitchell, **G.V. Rogachev**, E.D. Johnson, L.T. Baby, K.W. Kemper, A.M. Moro, P. Peplowski, A.S. Volya and I. Wiedenhoever. “Structure of  $^8\text{B}$  from elastic and inelastic  $^7\text{Be}+p$  scattering”.
  - *Phys. Rev. C* **86**, 044314 (2012);  
V.Z. Goldberg and **G.V. Rogachev**. “Level structure of  $^{10}\text{C}$ ”.
  - *Phys. Rev. Lett.* **109**, 232701 (2012);  
M. La Cognata, C. Spitaleri, O. Trippella, G.G. Kiss, **G.V. Rogachev**, A.M. Mukhamedzhanov, M. Avila, G.L. Guardo, E. Koshchiy, A. Kuchera, L. Lamia, S.M.R. Puglia, S. Romano, D. Santiago and R. Sparta. “Measurement of the -3 keV Resonance in the Reaction  $^{13}\text{C}(\alpha,n)^{16}\text{O}$  of Importance in the s-Process”.

- Phys. Rev. Lett. **107**, 092701 (2011);  
E.F. Aguilera, P. Amador-Valenzuela, E. Martinez-Quiroz, D. Lizcano, P. Rosales, H. Garcia-Martinez, A. Gomez-Camacho, J.J. Kolata, A. Roberts, L.O. Lamm, **G. Rogachev**, V. Guimaraes, F.D. Becchetti, A. Villano, M. Ojaruega, M. Febbraro, Y. Chen, H. Jiang, P.A. DeYoung, G.F. Peaslee, C. Guess, U. Khadka, J. Brown, J.D. Hinnefeld, L. Acosta, E.S. Rossi Jr., J.F.P. Huiza and T.L. Belyaeva. “Near-Barrier Fusion of the B-8+Ni-58 Proton-Halo System”.
- Phys. Rev. C **84**, 054615 (2011);  
A.N. Kuchera, **G.V. Rogachev**, V.Z. Goldberg, E.D. Johnson, S. Cherubini, M. Gulino, M. La Cognata, L. Lamia, S. Romano, L.E. Miller, R.G. Pizzone, G.G. Rapisarda, M.L. Sergi, C. Spitaleri, R.E. Tribble, W.H. Trzaska and A. Tumino. “Molecular structures in T=1 states of  $^{10}\text{B}$ ”.
- Euro. Phys. J. A **47**, 96 (2011);  
M. Norrby, T. Lonnroth, V.Z. Goldberg, **G.V. Rogachev**, M.S. Golovkov, K.-. Kallman, M. Lattuada, S.V. Perov, S. Romano, B.B. Skorodumov, G.P. Tiourin, W.H. Trzaska, A. Tumino and A.N. Vorontsov. “Elastic alpha-particle resonances as evidence of clustering at high excitation in  $^{40}\text{Ca}$ ”.
- Euro. Phys. J. A **47**, 73 (2011);  
M. Norrby, T. Lonnroth, V.Z. Goldberg, **G.V. Rogachev**, M.S. Golovkov, K.-. Kallman, M. Lattuada, S.V. Perov, S. Romano, B.B. Skorodumov, G.P. Tiourin, W.H. Trzaska, A. Tumino and A.N. Vorontsov. “Highly excited alpha-cluster states in  $^{34}\text{S}$ ”.
- Phys. Lett. B **692**, 307 (2010);  
V.Z. Goldberg, B.T. Roeder, **G.V. Rogachev**, G.G. Chubarian, E.D. Johnson, C. Fu, A.A. Alharbi, M.L. Avila, A. Banu, M. McCleskey, J.P. Mitchell, E. Simmons, G. Tabacaru, L. Trache and R.E. Tribble. “First observation of  $^{14}\text{F}$ ”.
- Euro. Phys. J. A **46**, 5 (2010);  
T. Lonnroth, M. Norrby, V.Z. Goldberg, **G.V. Rogachev**, M.S. Golovkov, K.-. Kallman, M. Lattuada, S.V. Perov, S. Romano, B.B. Skorodumov, G.P. Tiourin, W.H. Trzaska, A. Tumino and A.N. Vorontsov. “Highly excited alpha-cluster states in S-32 studied with the thick-target inverse kinematics method”.
- Phys. Rev. C **82**, 011601 (2010);  
J.P. Mitchell, **G.V. Rogachev**, E.D. Johnson, L.T. Baby, K.W. Kemper, A.M. Moro, P.N. Peplowski, A. Volya and I. Wiedenhoever. “Low-lying states in  $^8\text{B}$ ”.
- Euro. Phys. J. A **42**, 135 (2009);  
E.D. Johnson, **G.V. Rogachev**, V.Z. Goldberg, S. Brown, D. Robson, A.M. Crisp, P.D. Cottle, C. Fu, J. Giles, B.W. Green, K.W. Kemper, K. Lee, B.T. Roeder and R.E. Tribble. “Extreme  $\alpha$ -clustering in the  $^{18}\text{O}$  nucleus”.
- Phys. Rev. C **80**, 045805 (2009);  
E.D. Johnson, **G.V. Rogachev**, J. Mitchell, L. Miller and K.W. Kemper. “ $^{14}\text{C}(\alpha,\gamma)$  reaction rate”.

- Phys. Rev. C **77**, 064314 (2008);  
C. Fu, V.Z. Goldberg, **G.V. Rogachev**, G. Tabacaru, G.G. Chubarian, B. Skorodumov, M. McCleskey, Y. Zhai, T. Al-Abdullah, L. Trache and R.E. Tribble. “First observation of alpha-cluster states in the  $^{14}\text{O}+^4\text{He}$  interaction”.
- Phys. Rev. C **78**, 044603 (2008);  
B.B. Skorodumov, **G.V. Rogachev**, A. Aprahamian, V.Z. Goldberg, J.J. Kolata, S. Almaraz, H. Amro, E.D. Johnson, L.O. Lamm, M. Quinn, A. Teymurazyan and A. Woehr. ”T=3/2 states in  $^{13}\text{C}$ ”.
- Phys Rev. C **76**, 021603 (2007);  
C. Fu, V.Z. Goldberg, A.M. Mukhamedzhanov, G.G. Chubarian, **G.V. Rogachev**, B. Skorodumov, M. McCleskey, Y. Zhai, T. Al-Abdullah, G. Tabacaru, L. Trache and R.E. Tribble. “Single and double proton emissions from the  $^{14}\text{O}+^4\text{He}$  interaction”.
- Nucl. Inst. & Meth. in Phys. Res. A **570**, 384 (2007);  
R.T. Jones, T. Bogue, B.E. Evans, M. Kornicer, A.R. Dzierba, R. Gardner, J.L. Gunter, D. Krop, R. Lindenbusch, D.R. Rust, E. Seott, P. Smith, C. Steffen, S. Teige, D.S. Armstrong, J.H.D. Clark, L.J. Kaufman, D.J. Steiner, E. Frlez, D. Pocanic, J.J. Kolata, L.O. Lamm, **G. Rogachev**, C. Campbell, E. Collins, L. McGlinchey, P. Rubin, E. Walker, G.S. Adams, J. Napolitano, H. Crannell, D.I. Sober, R.R. Mammei and E.S. Smith. “Performance of the RADPHi detector and trigger in a high rate tagged photon beam”.
- Phys. Rev. C **75**, 014603 (2007);  
**G.V. Rogachev**, J.J. Kolata, A.S. Volya, F.D. Becchetti, Y. Chen, P.A. DeYoung and J. Lupton. “Spectroscopy of  $^9\text{C}$  via resonance scattering of protons on  $^8\text{B}$ ”.
- Phys. Rev. C **75**, 024607 (2007);  
B.B. Skorodumov, **G.V. Rogachev**, P. Boutachkov, A. Aprahamian, V.Z. Goldberg, A. Mukhamedzhanov, S. Almaraz, H. Amro, F.D. Becchetti, S. Brown, Y. Chen, H. Jiang, J.J. Kolata, L.O. Lamm, M. Quinn and A. Woehr. “Lowest excited states of O-13”.
- Nucl. Phys. A **768**, 22 (2006);  
P. Boutachkov, K.H. Maier, A. Aprahamian, **G. Rogachev**, L.O. Lamm, M. Quinn, B.B. Skorodumov and A. Woehr. ”Study of the low spin states of  $^{208}\text{Bi}$  through  $\gamma$ - $\gamma$  spectroscopy”.
- Phys. Rev. Lett. **97**, 192701 (2006);  
E.D. Johnson, **G.V. Rogachev**, A.M. Mukhamedzhanov, L.T. Baby, S. Brown, W.T. Cluff, A.M. Crisp, E. Diffenderfer, V.Z. Goldberg, B.W. Green, T. Hinners, C.R. Hoffman, K.W. Kemper, O. Momotyuk, P. Peplowski, A. Pipidis, R. Reynolds and B.T. Roeder. “Astrophysical reaction rate for the neutron-generator reaction  $^{13}\text{C}(\alpha, n)^{16}\text{O}$  in asymptotic giant branch stars”.
- Phys. Rev. C **74**, 024306 (2006);  
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- D.M. Moltz, J. Powell, B.B. Skorodumov, G. Tabacaru, X.D. Tang, R.E. Tribble, B.A. Brown, A. Volya and J. Cerny. “Structure of  $^{12}\text{N}$  using  $^{11}\text{C}+p$  resonance scattering”.
- Phys of Atom. Nucl. **69**, 1979 (2006);  
B.B. Skorodumov, **G.V. Rogachev**, P. Boutachkov, A. Aprahamian, J.J. Kolata, L.O. Lamm, M. Quinn and A. Woehr. “Investigation of the  $^{19}\text{Na}$  nucleus via resonance elastic scattering”.
  - Phys. Rev. C **71**, 054610 (2005);  
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  - Phys. Rev. Lett. **95**, 132502 (2005);  
P. Boutachkov, **G.V. Rogachev**, V.Z. Goldberg, A. Aprahamian, F.D. Becchetti, J.P. Bychowski, Y. Chen, G. Chubarian, P.A. DeYoung, J.J. Kolata, L.O. Lamm, G.F. Peaslee, M. Quinn, B.B. Skorodumov and A. Woehr. “Doppler shift as a tool for studies of isobaric analog states of neutron-rich nuclei: Application to  $^7\text{He}$ ”.
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P. Boutachkov, **G.V. Rogachev**, V.Z. Goldberg, A. Aprahamian, F.D. Becchetti, J.P. Bychowski, Y. Chen, G. Chubarian, P.A. DeYoung, J.J. Kolata, L.O. Lamm, G.F. Peaslee, M. Quinn, B.B. Skorodumov and A. Woehr. “Isobaric analog states of neutron-rich nuclei. Doppler shift as a measurement tool for resonance excitation functions”.
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**G.V. Rogachev**, P. Boutachkov, A. Aprahamian, F.D. Becchetti, J.P. Bychowski, Y. Chen, G. Chubarian, P.A. DeYoung, V.Z. Goldberg, J.J. Kolata, L.O. Lamm, G.F. Peaslee, M. Quinn, B.B. Skorodumov and A. Woehr. “Analog states of  $^7\text{He}$  observed via the  $^6\text{He}(p,n)$  reaction”.
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J.P. Bychowski, P.A. DeYoung, B.B. Hilldore, J.D. Hinnefeld, A. Vida, F.D. Becchetti, J. Lupton, T.W. O’Donnell, J.J. Kolata, **G. Rogachev** and M. Hencheck. “ $^{209}\text{Bi}(^6\text{He},\alpha)$  reaction mechanisms studied near the Coulomb barrier using n- $\alpha$  coincidence measurements”.
  - Phys. Rev. C **69**, 031302 (2004);  
V.Z. Goldberg, G.G. Chubarian, G. Tabacaru, L. Trache, R.E. Tribble, A. Aprahamian, **G.V. Rogachev**, B.B. Skorodumov and X.D. Tang. “Low-lying levels in  $^{15}\text{F}$  and the shell model potential for drip-line nuclei”.
  - Nucl. Phys. A **734**, 349 (2004);  
V.Z. Goldberg, **G.V. Rogachev**, J.J. Kolata, G. Chubarian, D. Aleksandrov, M.S. Golovkov, Y.T. Oganessian, A. Rodin, B. Skorodumov, R.S. Slepnev, G. Ter-Akopian and R. Wolski. “Resonance scattering  $^8\text{He}+p$  and  $T=5/2$  states in  $^9\text{Li}$ ”.
  - Phys. Rev. C **69**, 024602 (2004);  
V.Z. Goldberg, **G.V. Rogachev**, W.H. Trzaska, J.J. Kolata, A. Andreyev, C. Angulo,



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- Phys. Rev. C **67**, 041603 (2003);  
**G.V. Rogachev**, V.Z. Goldberg, J.J. Kolata, G. Chubarian, D. Aleksandrov, A. Fomichev, M.S. Golovkov, Y.T. Oganessian, A. Rodin, B. Skorodumov, R.S. Slepnev, G. Ter-Akopian, W.H. Trzaska and R. Wolski. “ $T=5/2$  states in  $^9\text{Li}$ : Isobaric analog states of  $^9\text{He}$ ”.
  - Phys. Rev. C **68**, 024602 (2003);  
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- Proc. of European Conference on Advances in Nuclear Physics and Related Areas, 726 (1999);  
**G.V. Rogatchev**, V.Z. Goldberg, M.S. Golovkov, A.E. Pakhomov, V.A. Timofeev and I.N. Serikov. “Study of proton rich  $^8\text{B}$  nuclei by elastic resonance scattering of radioactive  $^7\text{Be}$  on hydrogen”; European Conference on Advances in Nuclear Physics and Related Areas.
- AIP Conf. Proc. **455**, 260 (1998);  
L. Axelsson, K. Markenroth, M.J.G. Borge, S. Fayans, V.Z. Goldberg, S. Grevy, D. Guillemaud-Mueller, B. Jonson, K.M. Kallman, T. Lonroth, M. Lewitowicz, P. Manngard, I. Martel, A.C. Mueller, I. Mukha, T. Nilsson, G. Nyman, N.A. Orr, K. Riisager, **G.V. Rogatchev**, M.G. Saint-Laurent, I.N. Serikov, O. Sorlin, O. Tengblad, F. Wenzander, J.S. Winfield and R. Wolski. “Visualizing  $^{11}\text{N}$  by resonance reactions”. ENAM 98: Exotic Nuclei and Atomic Masses.
- Acta Phys. Hun. New Ser. **7**, 355 (1998);  
M. Brenner, E. Indola, K.M. Kallman, T. Lonroth, P. Manngard, M. Halldorsdottir, T. Karlsson, Z. Mate, L. Zolnai, V.Z. Goldberg, **G.V. Rogatchev**, M.V. Rojkov, I.N. Serikov, W. Trzaska and R. Wolski. “Energy-spin relations of mid-sd-shell nuclear states -  $\alpha$  cluster effect”; 2nd Latin American Workshop on Nuclear and Heavy Ion Physics.

## Invited Presentations

- “Active Target Detector Systems and its applications”;  
XXIII International School on Nuclear Physics, Neutron Physics and Applications, September 2019, Varna, Bulgaria.
- “Nuclear Reactions - Experiment”;  
Lecture series at the Nuclear Physics School For Young Scientists (NuSYS-2019), August 2019, Lanzhou, China.
- “Exploring structure of exotic nuclei through resonance scattering and direct reactions using active targets.”  
Workshop on Challenges in Direct Nuclear Reactions, August 2019, Beijing, China.
- “Recent studies of proton-rich nuclei using active target at the Cyclotron Institute.”  
International Conference on Proton-Emitting Nuclei 2019, June 2019, East Lansing, MI, USA
- “Clustering in Exotic Nuclei”;  
APS April Meeting 2019, April 2019, Denver, CO, USA



- “New opportunities offered by modern active target detector systems”;  
1st RAON Users Workshop, April 2019, Daejeon, South Korea
- “Sub- and Near- Coulomb alpha transfer reactions for nuclear astrophysics”;  
Science with the Super-Enge Split-pole spectrograph and workshop on transfer reactions, March 2019, Tallahassee, FL
- “Insights into nuclear continuum through resonance scattering” (plenary presentation);  
XLI Brazilian Meeting on Nuclear Physics, September 2018, Maresias, SP, Brazil.
- “Design and Commissioning of Texas Active Target (TexAT) detector system”;  
Workshop on Active Targets and Time Projection Chambers for High-intensity and Heavy-ion beams in Nuclear Physics, January 2018, Santiago de Compostela, Spain.
- “Overview of ARUNA facilities”;  
Low Energy community meeting, Argonne National Laboratory, August 2017, Argonne, IL, USA.
- “Recent advances in understanding of shell evolution in N=7 isotones and Nitrogen isotopes”;  
Workshop on “Predictive Theories of Nuclear Reactions Across the Isotopic Chart”,  
Institute for Nuclear Theory, March 2017, Seattle, WA, USA.
- “Stable and Radioactive Ion Beams at Texas A&M University”;  
Low Energy Nuclear Physics community workshop, August 2016, Notre Dame, IN, USA.
- “Quantifying clustering near  $\alpha$ -threshold”;  
11<sup>th</sup> International Conference on Clustering Aspects of Nuclear Structure and Dynamics, May 2016, Naples, Italy.
- “Structure of light exotic nuclei and clustering phenomena studied through the unbound states with ReA3”;  
ReA3 workshop at 2015 Low Energy Nuclear Physics community meeting, Aug. 2015, East Lansing, MI, USA.
- “Constraining the key  $\alpha$ -capture astrophysical reaction rates using the sub-Coulomb  $\alpha$ -transfer reactions”;  
Conference on Nucleus-Nucleus Collision 2015, Jun. 2015, Catania, Italy.
- “Light Exotic Nuclei Studied via Resonance Scattering”;  
Congress of Canadian Association of Physicists, Jun. 2015, Edmonton, Alberta, Canada.
- “Astrophysical Aspects of Clusters in Oxygen Isotopes”;  
Gordon Research Conference on nuclear chemistry, Jun. 2015, New London, New Hampshire.
- “Clustering in non-self-conjugate nuclei  $^{10}\text{Be}$  and  $^{18}\text{O}$ ”;  
3rd Workshop on State of the Art in Nuclear Clusters Physics, May 2014, Yokohama, Japan.

- “Measurement of  $p+{}^7\text{Be}$  elastic and inelastic excitation functions”;  
RIKEN Workshop on “Inelastic excitations in thick target inverse kinematics approach resonance”, May 2014, Waco, Japan.
- “Recent Progress in Exotic nuclei Studies using Resonance Scattering”.  
VII International Symposium on Exotic Nuclei EXON2014. Sep. 2014, Kaliningrad, Russian Federation.
- “Introductory Experimental Nuclear Astrophysics”;  
Lecture series at the 7th European Summer School on Experimental Nuclear Astrophysics, Sep. 2013, Catania, Italy.
- “Nuclear Reactions”;  
Lecture series at the Exotic Beams Summer School, Jul. 2013, LBNL, Berkeley, US.
- “Exploring the lightest nuclei with resonance scattering”;  
Workshop on *ab initio* description of atomic nucleus, Dec. 2012, Birmingham, UK.
- “Structure of light nuclei in resonance scattering experiments”;  
International Conference on Recent Advances in Nuclear Physics, Nov. 2012, Barotiwala, India.
- “Clustering in non-self-conjugate nuclei”;  
Symposium on Frontier Issues in Physics of Exotic Nuclei, Oct. 2011, Kyoto, Japan.
- “Detectors for experimental nuclear astrophysics”;  
6th European Summer School on Experimental Nuclear Astrophysics, Sep. 2011, Catania, Italy.
- “ $\alpha$ -clustering in light non-self-conjugate nuclei”;  
Continuum and Correlations in Light Nuclei, Jun. 2011, Trento, Italy.
- “Extremely clustered continuum  $\alpha$ -halo states in light nuclei”;  
III Workshop on Nuclei and Mesoscopic physics (WNMP2011), Mar. 2011, East Lansing, USA.
- “Structure of light exotic nuclei in resonance scattering”;  
Workshop on the “Limits of existence of Light nuclei”, Oct. 2010, Trento, Italy.
- “Resonance Scattering and  $\alpha$ -transfer reactions for nuclear astrophysics”;  
5th European Summer School on Experimental Nuclear Astrophysics, Sep. 2009, Santa Tecla, Sicily, Italy.
- “ $\alpha$ -halo in light nuclei”;  
Gordon Research Conference, Nuclear Chemistry. “Frontiers Of Nuclear Structure Through Spectroscopy And Reactions”, Jun. 2009, New London, NH, USA.
- “Transfer and resonance reactions in the era of unstable beams at FRIB”;  
RIA/FRIB Workshop, Argonne National Lab, May 2009, Chicago, Illinois, USA.

- “Spectroscopy of light exotic nuclei in resonance reactions”; Meeting of Southern Section of American Physical Society (SESAPS). Oct. 2008, Raleigh, NC.
- “ANC technique and R-matrix analysis”; Workshop on “AZURE- R-Matrix and Nuclear Reactions in stellar Hydrogen and Helium Burning”, Apr. 2008, Santa Fe, NM.
- “Sub-Coulomb  $\alpha$  transfer reactions in Nuclear Astrophysics”; Mini-symposium on Experimental Techniques in Low Energy Nuclear Astrophysics Studies. DNP 2006: 2006 Division of Nuclear Physics Annual Meeting, Oct. 2006, Nashville, Tennessee.
- “Structure of  $^9\text{C}$  and  $^7\text{He}$ . Resonance reactions with studies of light exotic nuclei”; Meeting of American Physical Society (APS), Apr. 2006, Dallas, TX, USA.
- “Cluster configurations in non-self-conjugate nuclei”; Presented at the SPIRAL2 Workshop on Nuclear Reactions. GANIL, Oct. 2005, Caen, France.
- “Recent advances in studies of exotic nuclei via resonance reactions.”; CAARI 2004: 18th International Conference on the Application of Accelerators in Research and Industry. Oct. 2004, Denton, TX, USA.
- “The Structure of Exotic  $^7\text{He}$  and  $^9\text{He}$ ”; 6th International Radioactive Nuclear Beams Conference (RNB6). Sep. 2003, Argonne, IL, USA.
- “Low energy RNB measurements using the stopped beam technique”; CAARI 17th International Conference on the Application of Accelerators in Research and Industry CAARI 2002, Nov. 2002, Denton, Texas, USA.

## Colloquia and Seminars

- “From nucleon-nucleon interaction to stars and physics beyond the standard model”; Colloquium at Texas A&M University at Commerce, January 2018, Commerce, TX, USA.
- “Structure of Light Exotic Nuclei and Nuclear Astrophysics Through the Lens of Nuclear Reactions”; Seminar at Ohio University, November 2016, Athens, OH, USA.
- “Structure of Light Exotic Nuclei and Nuclear Astrophysics Through the Lens of Nuclear Reactions”; Seminar at University of Notre Dame, October 2016, Notre Dame, IN, USA.
- “Structure of Light Exotic Nuclei and Nuclear Astrophysics Through the Lens of Nuclear Reactions”; Seminar at Argonne National Laboratory, September 2016, Illinois, IL, USA.

- “Preliminary results of the S1264 experiment”;  
TRIUMF, Jul 2014, Vancouver, Canada.
- “Understanding of nuclear structure and stellar processes through nuclear reactions”;  
Colloquium at Texas A&M University, Apr. 2013, College Station, TX, USA.
- “Structure of exotic nuclei and understanding of the rp-process”;  
Seminar at Texas A&M University, Apr. 2013, College Station, TX, USA.
- “ANASEN: Recent results and future directions”;  
Colloquium at the Los Alamos National Laboratory, Jan. 2013, Los Alamos, NM, USA.
- “ANASEN: Recent results and future directions”;  
Seminar at the University of York, Dec. 2012, York, UK.
- “ANASEN: Recent results and future directions”;  
Seminar at the University of Notre Dame, Dec. 2012, Notre Dame, Indiana, USA.
- “ANASEN: Recent results and future directions”;  
Seminar at the National Superconducting Cyclotron Laboratory, Michigan State University, Oct. 2012, East Lansing, USA.
- “Structure of light nuclei studied via resonance scattering”;  
Colloquium at the Canada’s National Laboratory for Particle and Nuclear Physics (TRIUMF), University of British Columbia, British Columbia, Jul. 2011, Vancouver, Canada.
- “Extremely clustered continuum “alpha-halo” states in light nuclei”;  
Colloquium at the National Superconducting Cyclotron Laboratory, Michigan State University, Mar. 2011, East Lansing, USA.
- “Structure of light exotic nuclei in resonance scattering”;  
Seminar at Argonne National Laboratory, Mar. 2010, Argonne, IL, USA.
- “Nuclear Astrophysics and Indirect Experimental methods”;  
Colloquium at Mississippi State University, Jan. 2010, Starkville, MS, USA.
- “First results with the new RNB facility RESOLUT and nuclear astrophysics with stable beams at FSU”;  
Seminar at the University of Notre Dame, Apr. 2009, Notre Dame, IN, USA.
- “Resonances in Atomic Nuclei: From exotic nuclei to nuclear astrophysics”;  
Colloquium at Florida State University, Feb. 2009, Tallahassee, FL, USA.
- “Nuclear Astrophysics with stable beams at FSU”;  
Seminar at Michigan State University, Feb. 2008, East Lansing, MI, USA.
- “Spectroscopy of light exotic (and not so exotic) nuclei in resonance scattering”;  
Seminar at Florida State University, Mar. 2007, Tallahassee, FL, USA.

- “Structure of light exotic nuclei in resonances elastic scattering”;  
Nuclear Theory Journal Club at Florida State University, Sep. 2006, Tallahassee, FL, USA.
- “Resonance reactions as a tool for spectroscopy of exotic nuclei”;  
Seminar at Michigan State University, Mar. 2005, East Lansing, Michigan, USA.
- “Resonance reactions with Rare Isotope Beams”;  
Seminar at Florida State University, Mar. 2004, Tallahassee, Florida, USA.
- “Recent studies of exotic structures in light nuclei”;  
Seminar at University of Notre Dame, Apr. 2002, Notre Dame, IN, USA.
- “Application of RNB for spectroscopy studies of light exotic nuclei”;  
Seminar at Texas A&M University, Nov. 2002, College Station, Texas, USA.
- “Study of proton rich nuclei  $^8\text{B}$  and  $^{11}\text{N}$  via resonance elastic scattering”;  
Seminar at the University of Notre Dame, Nov. 2000, Notre Dame, IN, USA.
- “Exotica in resonance scattering”;  
Seminar at the Russian Research Centre “Kurchatov Institute”, Apr. 1999, Moscow, Russia.

## Oral Presentations

- “Texas Active Target (TexAT) - design, commissioning and first results.”;  
5th Joint Meeting of the APS Division of Nuclear Physics and the Physical Society of Japan, October 2018, Waikoloa, Hawaii.
- “Resonance scattering with exotic beams - past, present, and future”;  
Direct Reactions with Exotic Beams conference, DREB2018, June 2018, Matsue, Japan.
- “Structure of unbound  $^{10}\text{N}$  and  $^9\text{He}$ ”;  
3rd International Conference on Advances in Rare Isotope Science, ARIS2017, June 2017, Keystone, CO, USA.
- “Texas Active Target (TexAT)”;  
Low Energy Nuclear Physics community workshop, August 2016, Notre Dame, IN, USA.
- “Recent experience with ReA3 beam time structure”;  
Low Energy Nuclear Physics community workshop, August 2016, Notre Dame, IN, USA.
- “Nuclear Structure Beyond the drip-line:  $^9\text{He}$  and  $^{10}\text{N}$ ”;  
Workshop on Direct Reactions with Exotic Beams 2016. July 2016, Halifax, Canada.
- “Statistical Problems in Track Detectors”;  
Texas A&M University College of Science “Big Data” workshop, Jan. 2016, College Station, TX, USA.

- “TexAT - Texas Active Target detector”;  
Big data workshop at the Cyclotron Institute, Texas A&M University, Dec. 2015, College Station, TX, USA.
- “CNS at the TAMU cyclotron facility”;  
MINER collaboration workshop, Texas A&M University, Nov. 2015, College Station, TX, USA.
- “Opportunities with TexAT at AIRIS”;  
AIRIS workshop at 2015 Low Energy Nuclear Physics community meeting, Aug. 2015, East Lansing, MI, USA.
- “Nuclear Structure with stable and Rare Isotope Beams at TAMU”;  
The meeting of the US Low Energy Nuclear Physics community. Preparation of the White Paper for the US Long Range Plan of nuclear physics research. Aug. 2014, College Station, Texas, USA.
- “Exploring reaction rates near  $A=30$ ”;  
The meeting of the US Low Energy Nuclear Physics community. Preparation of the White Paper for the US Long Range Plan of nuclear physics research. Aug. 2014, College Station, Texas, USA.
- “Indirect methods with stable beams”;  
The meeting of the US Low Energy Nuclear Physics community. Preparation of the White Paper for the US Long Range Plan of nuclear physics research. Aug. 2014, College Station, Texas, USA.
- Summary of Working group “Stable and  $\gamma$  beams, stars, stellar burning, Big Bang, Sun”;  
The meeting of the US Low Energy Nuclear Physics community. Preparation of the White Paper for the US Long Range Plan of nuclear physics research. Aug. 2014, College Station, Texas, USA.
- “Clustering in  $A=10$  nuclei”;  
10th International Conference on Clustering Aspects of Nuclear Structure and Dynamics, Sep. 2012, Debrecen, Hungary.
- “The First Experiments with ANASEN”;  
2nd European Nuclear Physics Conference 2012, Sep. 2012, Bucharest, Romania.
- “The First Experiments with ANASEN”;  
International Conference of Nuclear Structure 2012, Aug. 2012, Argonne, Illinois, USA.
- “Array for Nuclear Astrophysics Studies with exotic nuclei (ANASEN)”;  
Workshop on Advances in Nuclear Radiation Detectors and Technologies, Jan. 2011, New Brunswick, New Jersey, USA.
- “Reactions for Nuclear Astrophysics”;  
FRIB Instrumentation workshop, Feb. 2010, East Lansing, Michigan, USA.

- Plenary report on “Silicon Arrays workgroup discussion”;  
FRIB Instrumentation workshop, Feb. 2010, East Lansing, Michigan, USA.
- “Clustering phenomena in light  $N \neq Z$  nuclei”;  
COMEX3: Collective Motions in Nuclei under Extreme Conditions, Jun. 2009, Mackinac Island, Michigan, USA.
- “Study of light exotic nuclei through resonance reactions with RNB’s”;  
RNB8: 8th International Conference on Radioactive Nuclear Beams, May 2009, Grand Rapids, Michigan, USA.
- “Spectroscopy of light exotic nuclei using resonance scattering in inverse kinematics”;  
DREB2007: The V International Workshop on Direct Reactions with Exotic Beams, Jun. 2007 Wako, Japan.
- “Indirect Techniques in Nuclear Astrophysics”; INPC2007: International Nuclear Physics Conference, Jun 2007, Tokyo, Japan.
- “ $\alpha$  - cluster states in  $^{18}\text{O}$ ”; DREB2005: The IV International Workshop on Direct Reactions with Exotic Beams, Jun. 2005, East Lansing, Michigan.
- “Structure of Heavy Helium Isotopes via the isobaric analog states in Lithium”;  
DNP 2003: Fall Meeting of the APS Division of Nuclear Physics, Oct. 2003, Tucson, Arizona, USA.
- “Investigation of  $\alpha$ -cluster structure of  $^{22}\text{Ne}$  and  $^{22}\text{Mg}$ ”;  
EXON 2001: International Symposium on Exotic Nuclei, Jul 2001, Listvyanka, Russia.
- “Recent Results from the TWINSOL Radioactive Nuclear Beam Facility”;  
CAARI 2000: International Conference on the Application of Accelerators in Research and Industry, Nov. 2000, Denton, Texas, USA.
- “Study of proton rich nucleus  $^8\text{B}$  in resonance interaction of radioactive  $^7\text{Be}$  with Hydrogen”;  
Joint Study Weekend HALO’98, Apr. 1998, Lisbon, Portugal.
- “Study of proton rich  $^{11}\text{N}$  and  $^8\text{B}$  nuclei by elastic resonance scattering”;  
Euro. Conf. on: “Advances In Nuclear Physics and Related Areas”, Jul. 1997, Thessaloniki, Greece.
- “Search of  $\alpha$ -Cluster States of Light Nuclei at High Excitation Energies”;  
1996 International Conf. on Nuclear Spectroscopy and Nuclear Structure, Jun. 1996, Moscow, Russia.

## Poster Presentations

- “Experiments with Array for Nuclear Astrophysics and Structure with Exotic Nuclei (ANASEN)”;  
2nd Conference on Advances in Radioactive Isotope Science, Jun. 2014, Tokyo, Japan.

- “Spectroscopy of light exotic nuclei in resonance scattering”;  
INPC2007: International Nuclear Physics Conference, Jun. 2007, Tokyo, Japan.
- “Application of Resonance Reactions for spectroscopy studies of exotic nuclei”;  
Limits2004: Conference on “Nuclei at the Limits”, Jul. 2004, Chicago, IL, USA.
- “In quest of a  $^3\text{H}$  excited state”;  
RNB6: 6th Conference on Radioactive Nuclear Beams, Sep. 2003, Argonne, IL, USA.
- “Structure of  $^9\text{He}$  nucleus via the isobaric analog states in  $^9\text{Li}$ ”;  
RNB6: 6th Conference on Radioactive Nuclear Beams, Sep. 2003, Argonne, IL, USA.
- “Investigation of  $^8\text{B}$  structure at low excitation energies”;  
ENAM 2001: 3rd International Conference on Exotic Nuclei and Atomic Masses, Jul. 2001, Hämeenlinna, Finland.
- “Reaction mechanism for  $^{12}\text{C}(^{14}\text{N},^6\text{Li})$  reaction”;  
European Conf. on: “Advances In Nuclear Physics and Related Areas”, Jul. 1997, Thessaloniki, Greece.



## Research Funding

- S. Tabor, P. Cottle, V. Crede, P. Eugenio, A. Frawley, K. Kemper, M. Riley, **G.V. Rogachev**, I. Wiedenhöver.  
“Experimental nuclear physics program at FSU”;  
National Science Foundation. (Jun. 2005 - May 2008.) Total award **\$3,500,000**.
- S. Tabor, P. Cottle, V. Crede, A. Frawley, M. Riley, **G.V. Rogachev**, I. Wiedenhöver.  
Experimental nuclear physics program at FSU”;  
National Science Foundation. (Jun. 2008 - May 2011.) Total award **\$4,500,000**.
- **G. Rogachev**, I. Wiedenhöver, J. Blackmon (LSU).  
“Major Research Instrumentation (MRI): Development of the Array for Nuclear Astrophysics Studies with Exotic Beams”;  
National Science Foundation. (Sep. 2008 - Aug. 2012.) Total award **\$720,000**.
- S. Tabor, P. Cottle, A. Frawley, M. Riley, **G.V. Rogachev** and I. Wiedenhöver.  
“Experimental nuclear physics program at FSU”;  
National Science Foundation. (Sep. 2011 - Aug. 2014.) Total award **\$5,500,000**.
- R.E. Tribble, C. Gagliardi, J.C. Hardy, C.M. Folden, D.H. Youngblood, **G.V. Rogachev**, J.B. Natowitz, S.J. Yennello, D. Melconian.  
“Experimental nuclear physics at Cyclotron Institute”;  
Department of Energy. (Jan. 2014 - Dec. 2016) Total award **\$10,000,000**.
- **G.V. Rogachev**.  
”Origin of Chemical Elements in the Universe”;  
The Welch Foundation. (Jun. 2014 - May 2017) Total award **\$180,000**.
- S.J. Yennello, G. Christian, C.M. Folden, C. Gagliardi, J.C. Hardy, D. Melconian, **G.V. Rogachev**, R.E. Tribble  
“Experimental nuclear physics program at the Cyclotron Institute”;  
Department of Energy. (Jan. 2017 - Dec. 2019) Total award **\$10,000,000**. (GR portion **\$1,703,203**)
- S.J. Yennello, G. Christian, C. Gagliardi, J. Holt, D. Melconian, A. Mukhamedzhanov, R. Rapp, **G.V. Rogachev**, R.E. Tribble  
“Center of Excellence in Low Energy Nuclear Science”;  
Department of Energy, National Nuclear Security Administration, Stewardship Science Academic Alliance program (Mar. 2017 - Feb. 2023). Total award **\$10,000,000**. (GR portion **\$875,000**)
- G. Rogachev and P. Kuchment  
“Strategic Transformative Research Program (STRP) - Novel directional neutron monitor for national security, basic science and industrial applications”;  
TAMU College of Science. (Sep 2017 - Aug 2018) Total award **\$40,780**.

# Teaching

## Courses Taught

U of Notre Dame	General Physics B, Electricity and Magnetism
Florida State U	General Physics A, Newtonian Mechanics
Florida State U	General Physics B, Electricity and Magnetism
Florida State U	General Physics A Studio, Newtonian Mechanics Studio
Florida State U	Planets, Stars and Galaxies. Introduction to Astronomy
Florida State U	Particle and Nuclear Physics
Florida State U	Inquiry based methods in physics education (Grad.)
Florida State U	Nuclear Astrophysics, R-matrix (Grad.)
Texas A&M U	General Physics B, UP Electricity, Magnetism and Optics
Texas A&M U	General Physics A, UP Newtonian Mechanics

## Supervisor of Postdoctoral Research Associates

Eric Johnson	2008 - 2009	FSU
Evgeniy Koshchiy	2009 - 2013	FSU
Ethan Uberseder	2014 - 2016	TAMU
Shadi Bedoor	2015 - 2016	TAMU
Jack Bishop	2018 - present	TAMU

## Supervisor of Doctoral Dissertations

Name	Grad. year	Dissertation Title	Institution
Eric Johnson	2008	“The cluster structure of oxygen isotopes”	FSU
Joseph Mitchell	2012	“Thermonuclear flashes on H/He accreting CO white dwarfs and structure of exotic nuclei”	FSU
Melina Avila	2013	“Clustering in $^{18}\text{O}$ and ANC measurements using ( $^6\text{Li},d$ ) reactions”	FSU
Anthony Kuchera	2013	“Clustering phenomena in $A=10$ $T=1$ nuclear systems”	FSU
Joshua Hooker	2019	“The Structure of Exotic Nuclei $^{10}\text{N}$ and $^9\text{C}$ Using the Active Target Approach”	TAMU
Heshani Jayatissa	2019	“Alpha-capture reaction rates for $^{22}\text{Ne}(\alpha,n)^{25}\text{Mg}$ and $^{22}\text{Ne}(\alpha,\gamma)^{26}\text{Mg}$ reactions via sub-Coulomb alpha-transfer and their effects on final abundances of s-process isotopes.”	TAMU
Shriteja Upadhyayula	exp. 2020		TAMU
Curtis Hunt	exp. 2020		TAMU
Eric Aboud	exp. 2022		TAMU
Dustin Scriven	exp. 2022		TAMU
Alexandra Bosh	exp. 2024		TAMU
Michael Roosa	exp. 2024		TAMU
Emily Harris	exp. 2025		TAMU
Zifeng Luo	exp. 2025		TAMU

## Doctoral Dissertation Committees

Tony Sumaryada	2007	FSU
Aaron Aguilar	2008	FSU
Edgar Carrera	2008	FSU
Thomas DeVore	2008	FSU
Patrick Peplowski	2009	FSU
Calem Hoffman	2009	FSU
Rifat Fatema	2009	FSU
Ashwani Kumar	2009	FSU
Sean Barton	2011	FSU
Alexander Rojas	2011	FSU
Sergey Gleizher	2011	FSU
Peter Bender	2011	FSU
Volha Abramkina	2011	FSU
Benjamin Conner	2011	FSU
Farrukh Fattoyev	2011	FSU
Robert Penney	2011	FSU
Sanhita Ghosh	2012	FSU
Dmitriy Mayorov	2015	TAMU
Giacomo Bonasera	2019	TAMU
Roman Chizhr	2019	TAMU
Eames Bennet	exp. 2020	TAMU

## Supervisor of Master of Science

Simon Brown	2006	“ $\alpha$ -cluster structure in $^{18}\text{O}$ ”	U of Surrey (exchange student)
Laniece Miller	2010	non-thesis MS	FSU
Heshani Jayatissa	2016	non-thesis MS	TAMU
Sriteja Upadhyayula	2016	non-thesis MS	TAMU
Joshua Hooker	2017	non-thesis MS	TAMU

## Supervisor of Bachelor’s Thesis

Alex Long	2009	“Calibration Methods of the Neutron Detector at Florida State University” (Honors)	FSU
John Carpino	2009	“The Building and testing of the Array for Nuclear Astrophysics Studies with Exotic Nuclei (ANASEN)”	FSU
Bert Green	2007	“ $\alpha$ -Cluster Resonances in $^{23}\text{Na}$ near the $^{19}\text{F}+\alpha$ threshold”	FSU

## Supervisor of REU Students at TAMU

- Austin Nelson, South Dakota SU, (2014, June - July).
- Daniel Yates, Pacific University, (2015, June - July).

- Kaitlin Salyer, University of Notre Dame, (2016, June - July).
- Emily Hudson, Swarthmore College, (2016, June - July).
- Adriana Moya, Arizona State University, (2017, June - July).
- Sophia Andaloro, University of Dallas, (2018, June - July).
- Tyler Milkeris-Zellar, University of West Florida, (2018, June - July).
- Eric Lester, Carnegie Mellon University, (2019, June - July).

## Young Scholars Program students at FSU (YSP)

- Sponsor of two 2007 YSP students, (2007, June - July).
- Sponsor of two 2008 YSP students, (2008, June - July).

# Service

## International Service

- Chair of the Local Organizing Committee for the VI International Workshop on Direct Reactions with Exotic Beams (DREB2009), Florida State University (Dec. 2009).
- Chair of the Local Organizing Committee for the 4th Workshop on State Of The Art in Nuclear Cluster Physics 2018 (SOTANCP4), Galveston, TX, USA.
- International Advisory Committee for the 5th Workshop on State Of The Art in Nuclear Cluster Physics 2022 (SOTANCP5), Split, Croatia.
- International Advisory Committee for the Workshop on Direct Reactions with Exotic Beams (DREB2012), Pisa, Italy.
- International Advisory Committee for the 10th International Conference on Direct Reactions with Exotic Beams (DREB2018), Matsue, Japan.
- International Advisory Committee for the Summer School on Experimental Nuclear Astrophysics, Santa Tecla, Italy. (Santa Tecla summer school series)
- International Advisory Committee for the Conference on Clustering Aspects of Nuclear Structure and Dynamics. (CLUSTER conference series)
- Organizing committee for “Workshop on Advances in Nuclear Radiation Detectors and Technologies” (Jan. 2011)
- Reviewer for Refereed Journals: Physical Review Letters, Physics Letters B, Physical Review C, Nuclear Physics A, Reports on Progress in Physics, Astrophysical Journal.
- Reviewer for International Funding agencies: National Science and Engineering Research Council of Canada (NSERC); Science&Technology Facilities Council (STFC), United Kingdom.
- Reviewer for Oak Ridge Associated Universities (ORAU) online evaluation system, PeerNet.

## National Service

- Chair of the NSF review panel for nuclear program at the University of Notre Dame (Feb. 2014).
- Member of the NSF review panel for nuclear program at the University of Notre Dame (Feb. 2017).
- Member of the NSF review panel for JINA-SEE NSF center of excellence (April 2017).
- Chair of the NSF review panel for JINA-SEE NSF center of excellence (April 2019).
- FRIB Users Organization Executive Committee (Jan. 2016 - Dec. 2018).

- Convener of FRIB Working Group on Silicon Arrays.
- Convener of the Working Group on “Stable and  $\gamma$  beams, stars, stellar burning, Big Bang, Sun” at the Low energy community meeting for the preparation of the White Paper for the US Long Range Plan. (Aug. 2014).
- Reviewer for National Funding Agencies: National Science Foundation (NSF), Department of Energy (DoE).

## University Service

- Faculty Senate (Sep. 2008 - Apr. 2011). FSU.
- Reviewer for Diversity Fellowship Program, (2016, 2017). TAMU.
- Committee for Development and Implementation of new joint Engineering & Science courses (2017). TAMU.

## Department Service

- Chair of the “Flying Circus of Physics” outreach program Organizing Committee, (Apr. 2009 - Feb. 2011). FSU.
- Chair of the “Cyclotron electronics pool” standing committee. (January 2015 - present). TAMU
- Undergraduate Advisory Committee, (Apr. 2005 - Apr. 2008). FSU.
- Graduate Affairs Committee, (Apr. 2008 - Aug. 2012). FSU.
- Saturday Morning Physics Committee, (Apr. 2005 - Dec. 2010). FSU.
- Faculty Performance Evaluation Committee (2015). TAMU.
- Tenure committee for Assistant Professor Cody Folden (2015). TAMU.
- Advisory Committee (Jan. 2017 - December 2017). TAMU
- Chair of Strategic Planning Committee (2017). TAMU

## Outreach

- “Flying Circus of Physics” - Contributor to FSU Department of Physics open-house event (2005, 2007, chair in 2009). FSU.
- “Physics Festival” - Contributor to TAMU Department of Physics&Astronomy annual open-house event (2014, 2015, 2016). TAMU.
- Saturday Morning Physics lecturer at FSU (annually from 2006 to 2011).
- Saturday Morning Physics lecturer at TAMU (2014, 2015).