

## Frank Strieder Biographical Sketch

### (a) Professional Preparation:

Ruhr-Universität Bochum, Germany, M.S. Physics (summa cum laude), 1996

Ruhr-Universität Bochum, Germany, Ph.D. Physics (summa cum laude), 2000

Ruhr-Universität Bochum, Germany, Venia Legendi (Habilitation, Permission to lecture), 2009

### (b) Appointments:

Associate Professor of Physics, South Dakota School of Mines and Technology, Rapid City,  
2015 – present

Lecturer (Privatdozent), Ruhr-Universität Bochum, Germany, 2009 – 2014

Visiting Assistant Professor, Seconda Università di Napoli, Caserta, Italy, 2013

Research Associate, Ruhr-Universität Bochum, Germany, 2000 – 2009

Pre-doctoral Associate, Ruhr-Universität Bochum, Germany, 1996 – 2000

### (c) Most Closely Related Products and Other Significant Products:

- R. J. deBoer, J. Görres, K. Smith, E. Uberseder, M. Wiescher, A. Kontos, G. Imbriani, A. Di Leva, **F. Strieder**, "Monte Carlo Uncertainty of the  ${}^3\text{He}(\alpha, \gamma){}^7\text{Be}$  reaction rate", Phys. Rev. C 90 (2014) 035804  
<http://dx.doi.org/10.1103/PhysRevC.90.035804>
- A. Di Leva, D.A. Scott, A. Caciolli, A. Formicola, **F. Strieder**, M. Aliotta, M. Anders, D. Bemmerer, C. Broggin, P. Corvisiero, Z. Elekes, Zs. Fülöp, G. Gervino, A. Guglielmetti, C. Gustavino, Gy. Gyürky, G. Imbriani, J. Jose, M. Junker, M. Laubenstein, R. Menegazzo, E. Napolitani, P. Prati, V. Rigato, V. Roca, E. Somorjai, C. Salvo, O. Straniero, T. Szücs, F. Terrasi, D. Trezzi, "Underground study of the  ${}^{17}\text{O}(p, \gamma){}^{18}\text{F}$  reaction for explosive hydrogen burning", Phys. Rev. C 89 (2014) 015803  
<http://dx.doi.org/10.1103/PhysRevC.89.015803>
- O. Straniero, G. Imbriani, **F. Strieder**, M. Junker, D. Bemmerer, C. Broggin, A. Caciolli, P. Corvisiero, H. Costantini, S. Cristallo, A. DiLeva, Z. Elekes, A. Formicola, Zs. Fülöp, G. Gervino, A. Guglielmetti, C. Gustavino, Gy. Gyürky, A. Lemut, B. Limata, M. Marta, C. Mazzocchi, R. Menegazzo, I. Piersanti, P. Prati, V. Roca, C. Rolfs, C. Rossi Alvarez, E. Somorjai, F. Terrasi, H.-P. Trautvetter, "Impact of a revised  ${}^{25}\text{Mg}(p, \gamma){}^{26}\text{Al}$  reaction rate on the operation of the Mg-Al cycle", Astrophys. J. 763 (2013) 100  
<http://dx.doi.org/10.1088/0004-637X/763/2/100>
- D. Schürmann, L. Gialanella, R. Kunz, **F. Strieder**, "The astrophysical S factor of  ${}^{12}\text{C}(\alpha, \gamma){}^{16}\text{O}$  at stellar energy", Phys. Lett. B 711 (2012) 35  
<http://dx.doi.org/10.1016/j.physletb.2012.03.064>
- **F. Strieder**, B. Limata, A. Formicola, G. Imbriani, M. Junker, H.W. Becker, D. Bemmerer, A. Best, R. Bonetti, C. Broggin, A. Caciolli, P. Corvisiero, H. Costantini, A. DiLeva, Z. Elekes, Zs. Fülöp, G. Gervino, A. Guglielmetti, C. Gustavino, Gy. Gyürky, A. Lemut, M. Marta, C. Mazzocchi, R. Menegazzo, P. Prati, V. Roca, C. Rolfs, C. Rossi Alvarez, C. Salvo, E. Somorjai, O. Straniero, F. Terrasi, H.-P. Trautvetter, "The  ${}^{25}\text{Mg}(p, \gamma){}^{26}\text{Al}$  Reaction at Astrophysical Energies", Phys. Lett. B 707 (2012) 60  
<http://dx.doi.org/10.1016/j.physletb.2011.12.029>
- E.G. Adelberger, A.B. Balantekin, D. Bemmerer, C.A. Bertulani, J.-W. Chen, H. Costantini, M. Couder, M. Wiescher, R. Cyburt, B. Davids, S.J. Freedman, M. Gai, A. Garcia, D. Gazit, L. Gialanella, U. Greife, M. Hass, W.C. Haxton, K. Heeger, G. Imbriani, T. Itahashi, A. Junghans, K. Kubodera, K.

Langanke, D. Leitner, M. Leitner, L.E. Marcucci, T. Motobayashi, A. Mukhamedzhanov, K.M. Nollett, F.M. Nunes, T.-S. Park, P.D. Parker, P. Prati, M. J. Ramsey-Musolf, R.G.H. Robertson, R. Schiavilla, E. Simpson, K. A. Snover, C. Spitaleri, **F. Strieder**, K. Sümmerer, H.-P. Trautvetter, R.E. Tribble, S. Typel, E. Uberseder, P. Vettel, L. Winslow, **Review article**: “Solar fusion cross sections II: the pp chain and CNO bi-cycle I”, Rev. Mod. Phys. 83 (2011) 195  
<http://dx.doi.org/10.1103/RevModPhys.83.195>

- H. Costantini, A. Formicola, G. Imbriani, M. Junker, C. Rolfs, **F. Strieder**, **Review article**: “LUNA: a Laboratory Underground for Nuclear Astrophysics”, Rep. Prog. Phys. 72 (2009) 086301  
<http://dx.doi.org/10.1088/0034-4885/72/8/086301>
- **F. Strieder**, “Reaction Data in Helium and Carbon Burning”, Journal of Physics G 35 (2008) 014009  
<http://dx.doi.org/10.1088/0954-3899/35/1/014009>
- **F. Strieder** and C. Rolfs, **Review article**: “Reaction data for light element nucleosynthesis”, Prog. Part. Nuc. Phys. 59 (2007) 562  
<http://dx.doi.org/10.1016/j.pnpnp.2007.02.001>

#### (d) Synergetic Activities

- Member of the International Advisory Committee (IAC) for the Jinping Underground Laboratory for Nuclear Astrophysics (JUNA), 2015 - present
- Member of the Collaboration Council for the SECAR experiment at the Facility for Rare Isotope Beams (FRIB) at Michigan State University, 2015 - present
- Member of the Review Panel of the European Science Foundation (ESF) EuroCores Programme EuroGENESIS, 2009 - 2014
- Co-Organizer of the “Solar Fusion II” Workshop in Seattle, USA, January 2009
- Referee for Physical Review Letters, Physics Letters B, Physical Review C, J. of Physics G, Nuclear Instruments and Methods A, Eur. Phys. J. A

#### (e) Awards

Recognition as an Outstanding Referee by Nuclear Instruments and Methods A, 2012

#### (f) Collaborators

Collaborators: Michael Wiescher, Dan Robertson, Manoel Couder, Richard DeBoer, University of Notre Dame; Uwe Greife, Colorado School of Mines; Jeff Schweitzer, University of Connecticut; Gianluca Imbriani, Antonino Di Leva, Università di Napoli (Italy); Lucio Gialanella, Seconda Università di Napoli (Italy); Alba Formicola, Matthias Junker, Andreas Best, Laboratori Nazionali del Gran Sasso (Italy); Marialuisa Aliotta, Tom Davinson, David Scott, Phil Woods, University of Edinburgh (UK); Alessandra Guglielmetti, Davide Trezzi, Università di Milano (Italy); Piero Corvisiero, Paolo Prati, Università di Genova (Italy); Carlo Brogini, Roberto Menegazzo, Università di Padova (Italy); Daniel Bemmerer, HFZ Dresden (Germany); Oscar Straniero, Osservatori di Teramo (Italy), Zsolt Fülöp, György Gyürky, Atomki Debrecen (Hungary); Anne Lebevre-Schul, Julian Stefan, IPN Orsay (France); Hans-Werner Becker, Detlef Rogalla, RUBION Bochum (Germany); Michael Smith, ORNL.

Ph.D. Thesis Advisor: Claus Rolfs (Ruhr-Universität Bochum, Germany)

Graduate Advisor: Hanns-Peter Trautvetter (Ruhr-Universität Bochum, Germany)

Former Ph.D. Students: Daniel Schürmann (INFN Napoli), Antonino Di Leva (Università di Napoli)