Dr. Peter Winter
Assistant Physicist
High Energy Physics Division
Argonne National Laboratory

Employment

07/2012 – present	Assistant Physicist in the High Energy Physics Division (Argonne National Laboratory). Leadership roles within the g-2 Project at Fermilab: Deputy Level-2 manager for the storage ring, Control Account Manager for the Precision Field and Level-4 manager for the NMR in-vacuum trolley at Fermilab.
08/2010 – 06/2012	Postdoctoral Research Associate in the Physics Department (University of Washington). Main analysis for the MuCap experiment and prototype calorimeter development for the new g-2 experiment at Fermilab. Central role during setup of the MuSun experiment.
09/2005 – 07/2010	Postdoctoral Research Associate in the Physics Department (University of Illinois at Urbana-Champaign). Leading role in the setup and data taking for the muon precision experiments MuLan, MuCap and MuSun at PSI. Analysis for the MuCap and MuLan experiments.
04/2005 – 09/2005	Postdoctoral research position within the EtaMesonNet network at the Research Center Jülich, Germany
06/1999 – 07/1999	Summer student at the Research Center of Jülich within the COSY-11 and ATRAP experiments

Education

01/2002 – 08/2005	Ph.D. thesis at the Research Center of Jülich, topic: Near threshold kaon production in proton-proton collisions at the experiment COSY-11, overall grade: magna cum laude
04/2003-2005	Postgraduate studies in economics for scientists at the Fernuniversität Hagen, Germany
10/1996 – 12/2001	Diploma studies in physics at the University of Bonn, diploma thesis at the Research Center Jülich, overall grade: 1.1

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1993 – 1995	Abitur (German school-leaving examination and university entrance qualification) at the Städtisches Gymnasium Rheinbach, grade 1.0

Research achievements

07/2015 – 06/2020	Recipient of an Early Career Award from the Department of Energy for outstanding researchers.
08/2012 – present	Major involvement and leadership roles in the g-2 Project at Fermilab. Establishment of a test magnet facility at Argonne. One published NIM A article.
09/2005 – 07/2012	New result for the singlet muon capture rate on the proton and determination of the proton's pseudoscalar form factor g_P with unprecedented precision of 7%. Major role during more than 6 months of setup and data taking at PSI. Main analyzer for the g_P result. Presentation of this result in April at the APS meeting in Atlanta with an invited talk. Two published PRL papers and one PRC.
2007 – present	Successful proposal of the MuSun experiment at PSI. Crucial role during setup and data taking. First physics data collected in 2011 with full experimental setup.
09/2005 – 01/2011	Improved measurement of the positive muon's lifetime (1 ppm precision) and determination of the Fermi constant (0.6 ppm precision). Central role for data taking periods at PSI and analyzer for one of the major systematics error. Two PRL papers (#1 and 5) and PRD in preparation.
01/2002 – 08/2005	New cross section measurements of kaon production confirming a strong enhancement near threshold compared to a pure phase space dependence. One PLB paper.
01/2001 – 12/2001	Measurement of the analyzing power in the reaction $\vec{p}p \to pp\eta$ with the first polarized beam at COSY. One PLB paper.

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2001 – 2009	COSY11 collaborator with central role in the setup of trigger and DAQ for various different measurements. Co-author of 12 papers. Several successful proposals for beam time request and defense in front of the COSY PAC.

Teaching

10/2009 – 07/2010	Teaching of undergraduate students in an advanced physics lab course at the University of Illinois at Champaign-Urbana.
10/1998 – 03/1999	Assistant at the Mathematical Institute of the University of Bonn, tutor of a mathematics exercise course

Stays abroad

07/2002 – 10/2002	Participant of the exchange program with the Argonne National Laboratory, Monte Carlo studies on the Drell-Yan experiment E866/NuSea and building a new laser experiment in atomic physics
06/2000 – 09/2000	Summer student at CERN, studies on the optimal jet finder within the L3 collaboration
01/2000 – 06/2000	Studies at the University of Lyon, France

Additional information

09/16/2005	Winner of the Günther-Leibfried award of the Research Center Jülich for best public thesis presentation
10/1995 – 09/1996	Military service
Languages	German: native language English: fluent French: very good knowledge

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List of publications

Journals (Citation records from INSPIRE database):

1. MuCap collaboration: V.A. Andreev, T.I. Banks, R.M. Carey, T.A. Case, S.M. Clayton, K.M. Crowe, J. Deutsch, J. Egger, S.J. Freedman, V.A. Ganzha, T. Gorringe, F.E. Gray, D.W. Hertzog, M. Hildebrandt, P. Kammel, B. Kiburg, S. Knaack, P.A. Kravtsov, A.G. Krivshich, B. Lauss, K.R. Lynch, E.M. Maev, O.E. Maev, F. Mulhauser, C. Petitjean, G.E. Petrov, R. Prieels, G.N. Schapkin, G.G. Semenchuk, M.A. Soroka, V. Tishchenko, A.A. Vasilyev, A.A. Vorobyov, M.E. Vznuzdaev, P. Winter, *Measurement of the Formation Rate of Muonic Hydrogen Molecules*, Phys. Rev. **C91**, 055502 (2015). Cited by 1 record.
2. A.T. Fienberg, L.P. Alonzi, A. Anastasi, R. Bjorkquist, D. Cauz, R. Fatemi, C. Ferrari, A. Fioretti, A. Frankenthal, C. Gabbanini, L.K. Gibbons, K. Giovanetti, S.D. Goadhouse, W.P. Gohn, T.P. Gorringe, D.W. Hertzog, M. Iacovacci, P. Kammel, J. Kaspar, B. Kiburg, L. Li, S. Mastroianni, G. Pauletta, D.A. Peterson, D. Pocanic, M.W. Smith, D.A. Sweigart, V. Tishchenko, G. Venanzoni, T.D. Van Wechel, K.B. Wall, P. Winter, K. Yai, *Studies of an array of PbF2 Cherenkov crystals with large-area SiPM readout*, Nucl. Instr. & Meth. **A783**, 12 (2015). Cited by 7 records.
3. J. Egger, D. Fahrni, M. Hildebrandt, A. Hofer, L. Meier, C. Petitjean, V.A. Andreev, T.I. Banks, S.M. Clayton, V.A. Ganzha, F.E. Gray, P. Kammel, B. Kiburg, P.A. Kravtsov, A.G. Krivshich, B. Lauss, E.M. Maev, O.E. Maev, G. Petrov, G.G. Semenchuk, A.A. Vasilyev, A.A. Vorobyov, M.E. Vznuzdaev, P. Winter, *A high-pressure hydrogen time projection chamber for the MuCap experiment*, Eur. Phys. J **A 50**, 163 (2014). Cited by 2 records.
4. MuLan collaboration: V. Tishchenko, S. Battu, R.M. Carey, D.B. Chitwood, J. Crnkovic, P.T. Debevec, S. Dhamija, W. Earle, A. Gafarov, K. Giovanetti, T.P. Gorringe, F.E. Gray, Z. Hartwig, D.W. Hertzog, B. Johnson, P. Kammel, B. Kiburg, S. Kizilgul, J. Kunkle, B. Lauss, I. Logashenko, K.R. Lynch, R. McNabb, J.P. Miller, F. Mulhauser, C.J.G. Onderwater, Q. Peng, J. Phillips, S. Rath, B.L. Roberts, D.M. Webber, P. Winter, B. Wolfe, *Detailed Report of the MuLan Measurement of the Positive Muon Lifetime and Determination of the Fermi Constant*, Phys. Rev. **D87**, 052003 (2013). Cited by 24 records.
5. MuCap collaboration: V.A. Andreev, T.I. Banks, R.M. Carey, T.A. Case, S.M. Clayton, K.M. Crowe, J. Deutsch, J. Egger, S.J. Freedman, V.A. Ganzha, T. Gorringe, F.E. Gray, D.W. Hertzog, M. Hildebrandt, P. Kammel, B. Kiburg, S. Knaack, P.A. Kravtsov, A.G. Krivshich, B. Lauss, K.R. Lynch, E.M. Maev, O.E. Maev, F. Mulhauser, C. Petitjean, G.E. Petrov, R. Prieels, G.N. Schapkin, G.G. Semenchuk, M.A.

Soroka, V. Tishchenko, A.A. Vasilyev, A.A. Vorobyov, M.E. Vznuzdaev, P. Winter, *Measurement of Muon Capture on the Proton to 1% Precision and Determination of the Pseudoscalar Coupling g_P*, Phys. Rev. Lett. **110**, 012504 (2013). Cited by 14 records.

6. MuLan collaboration: D.M. Webber, V. Tishchenko, Q. Peng, S. Battu, R.M. Carey, D.B. Chitwood, J. Crnkovic, P.T. Debevec, S. Dhamija, W. Earle, A. Gafarov, K. Giovanetti, T.P. Gorringe, F.E. Gray, Z. Hartwig, D.W. Hertzog, B. Johnson, P. Kammel, B. Kiburg, S. Kizilgul, J. Kunkle, B. Lauss, I. Logashenko, K.R. Lynch, R. McNabb, J.P. Miller, F. Mülhauser, C.J.G. Onderwater, J. Phillips, S. Rath, B.L. Roberts, P. Winter, B. Wolfe, *Measurement of the Positive Muon Lifetime and Determination of the Fermi Constant to Part-per-Million Precision*, Phys. Rev. Lett. **106**, 041803 (2011). Cited by 57 records.

7. M. Silarski, P. Moskal, E. Czerwinski, R. Czyżykiewicz, D. Gil, D. Grzonka, L. Jarczyk, B. Kamys, A. Khoukaz, J. Klaja, P. Klaja, W. Krzemien, W. Oelert, J. Ritman, T. Sefzick, M. Siemaszko, J. Smyrski, A. Täschner, P. Winter, M. Wolke, P. Wüstner, M. Zielinski, W. Zipper, J. Zdebik, *Generalized Dalitz plot analysis of the near-threshold $pp \to ppK^+K^-$ reaction in view of the K^+K^- final state interaction*, Phys. Rev. C **80**, 045202 (2009). Cited by 18 records.

8. FNAL E866/NuSea Collaboration: L.Y. Zhu, P.E. Reimer, B.A. Mueller, T.C. Awes, M.L. Brooks, C.N. Brown, J.D. Bush, T.A. Carey, T.H. Chang, W.E. Cooper, C.A. Gagliardi, G.T. Garvey, D.F. Geesaman, E.A. Hawker, X.C. He, D.E. Howell, L.D. Isenhower, D.M. Kaplan, S.B. Kaufman, S.A. Klinksiek, D.D. Koetke, D.M. Lee, W.M. Lee, M.J. Leitch, N. Makins, P.L. McGaughey, J.M. Moss, P.M. Nord, V. Papavassiliou, B.K. Park, G. Petitt, J.C. Peng, M.E. Sadler, W.E. Sondheim, P.W. Stankus, T.N. Thompson, R.S. Towell, R.E. Tribble, M.A. Vasiliev, J.C. Webb, J.L. Willis, P. Winter, D.K. Wise, Y. Yin, G.R. Young, *Measurement of Υ Production for $p+p$ and $p+d$ Interactions at 800 GeV/c*, Phys, Rev. Lett. **100**, 062301 (2008). Cited by 26 records.

9. MuCap collaboration: V.A. Andreev, T.I. Banks, T.A. Case, D.B. Chitwood, S.M. Clayton, K.M. Crowe, J. Deutsch, J. Egger, S.J. Freedman, V.A. Ganzha, T. Gorringe, F.E. Gray, D.W. Hertzog, M. Hildebrandt, P. Kammel, B. Kiburg, S. Knaack, P.A. Kravtsov, A.G. Krivshich, B. Lauss, K.L. Lynch, E.M. Maev, O.E. Maev, F. Mülhauser, C.S. Ozben, C. Petitjean, G.E. Petrov, R. Prieels, G.N. Schapkin, G.G. Semenchuk, M.A. Soroka, V. Tishchenko, A.A. Vasilyev, A.A. Vorobyov, M.E. Vznuzdaev, P. Winter, *Measurement of the Rate of Muon Capture in Hydrogen Gas and Determination of the Proton's Pseudoscalar Coupling g_P*, Phys. Rev. Lett. **99**, 032002 (2007). Cited by 51 records.

10. MuLan collaboration: D.B. Chitwood, T.I. Banks, M.J. Barnes, S. Battu, R.M. Carey,

S. Cheekatmalla, S.M. Clayton, J. Crnkovic, K.M. Crowe, P.T. Debevec, S. Dhamija, W. Earle, A. Gafarov, K. Giovanetti, T.P. Gorringe, F.E. Gray, M. Hance, D.W. Hertzog, M.F. Hare, P. Kammel, B. Kiburg, J. Kunkle, B. Lauss, I. Logashenko, K.R. Lynch, R. McNabb, J.P. Miller, F. Mülhauser, C.J.G. Onderwater, C.S. Ozben, Q. Peng, C.C. Polly, S. Rath, B.L. Roberts, V. Tishchenko, G.D. Wait, J. Wasserman, D.M. Webber, P. Winter, P.A. Zolnierczuk, *Improved Measurement of the Positive Muon Lifetime and Determination of the Fermi Constant*, Phys. Rev. Lett. **99**, 032001 (2007). Cited by 61 records.

11. J. Smyrski, H.-H. Adam, A. Budzanowski, E. Czerwinski, R. Czyżykiewicz, D. Gil, D. Grzonka, M. Janusz, L. Jarczyk, B. Kamys, A. Khoukaz, P. Klaja, T. Mersmann, P. Moskal, W. Oelert, C. Piskor-Ignatowicz, J. Przerwa, B. Rejdych, J. Ritman, T. Rożek, T. Sefzick, M. Siemaszko, A. Täschner, P. Winter, M. Wolke, P. Wüstner, W. Zipper, *Measurement of the* $dp \to {}^3He\eta$ *reaction near threshold*, Phys. Lett. B **649**, 258 (2007). Cited by 78 records.

12. H.-H. Adam, I. Geck, A. Khoukaz, T. Lister, R. Santo, S. Steltenkamp, A. Täschner (Münster U.), E. Czerwinski, R. Czyżykiewicz, M. Janusz Lucjan Jarczyk, B. Kamys, P. Klaja, P. Moskal, C. Piskor-Ignatowicz, J. Przerwa, J. Smyrski (Jagiellonian U.), D. Grzonka, K. Kilian, W. Oelert, T. Sefzick, P. Winter, M. Wolke, P. Wüstner (Julich, Forschungszentrum), A. Budzanowski (Cracow, INP), T. Rożek, M. Siemaszko, W. Zipper (Silesia U.), *Hadronic* ${}^3He\eta$ *production near threshold*, Phys. Rev. C **75**, 014004 (2007). Cited by 33 records.

13. R. Czyżykiewicz, P. Moskal, H. -H. Adam, A. Budzanowski, E. Czerwinski, D. Gil, D. Grzonka, M. Hodana, M. Janusz, L. Jarczyk, B. Kamys, A. Khoukaz, K. Kilian, P. Klaja, B. Lorentz, W. Oelert, C. Piskor-Ignatowicz, J. Przerwa, B. Rejdych, J. Ritman, T. Sefzick, M. Siemaszko, J. Smyrski, A. Täschner, K. Ulbrich, P. Winter, M. Wolke, P. Wüstner, W. Zipper, *Mechanism of the close-to-threshold production of the* η *meson*, Phys. Rev. Lett. **98**, 122003 (2007). Cited by 31 records.

14. T. Rożek, D. Grzonka, H.-H. Adam, A. Budzanowski, R. Czyżykiewicz, M. Janusz, L. Jarczyk, B. Kamys, A. Khoukaz, K. Kilian, P. Klaja, P. Kowina, P. Moskal, W. Oelert, C. Piskor-Ignatowicz, J. Przerwa, J. Ritman, T. Sefzick, M. Siemaszko, J. Smyrski, A. Taschner, P. Winter, M. Wolke, P. Wüstner, Z. Zhang, W. Zipper, *Threshold hyperon production in proton proton collisions at COSY-11*, Phys. Lett. B **643**, 251 (2006). Cited by 34 records.

15. P. Winter, M. Wolke, H.-H. Adam, A. Budzanowski, R. Czyżykiewicz, D. Grzonka, M. Janusz, L. Jarczyk, B. Kamys, A. Khoukaz, K. Kilian, P. Klaja, P.Moskal, W. Oelert, C. Piskor-Ignatowicz, J. Przerwa, J. Ritman, T. Rożek, T. Sefzick, M. Siemaszko, J.

Smyrski, A. Täschner, P. Wüstner, Z. Zhang, W. Zipper , *Kaon pair production close to threshold*, Phys. Lett. B **635**, 23 (2006). Cited by 41 records.

16. P. Moskal, H.-H. Adam, A. Budzanowski, R. Czyżykiewicz, D. Grzonka, M. Janusz, L. Jarczyk, T. Johansson, B. Kamys, P. Klaja, A. Khoukaz, K. Kilian, J. Majewski, W. Oelert, C. Piskor-Ignatowicz, J. Przerwa, J. Ritman, T. Rożek, T. Sefzick, M. Siemaszko, J. Smyrski, A. Täschner, J. Wessels, P. Winter, M. Wolke, P. Wüstner, Z. Zhang, W. Zipper, *A method to disentangle single- and multi-meson production in missing mass spectra from quasi-free* $pn \to pnX$ *reactions*, J. Phys. G **32**, 629 (2006). Cited by 27 records.

17. D. Grzonka, (ed.), R. Czyżykiewicz, (ed.), W. Oelert, (ed.), T. Rożek, (ed.), P. Winter, (ed.), *Low energy antiproton physics*, AIP Conf. Proc. 796 (2005) 453 p. Proceedings International Conference on Low Energy Antiproton Physics, Bonn, Germany (LEAP'05).

18. J. Smyrski, Ch. Kolf, H.-H. Adam, A. Budzanowski, R. Czyżykiewicz, D. Grzonka, A. Heczko, M. Janusz, L. Jarczyk, B. Kamys, A. Khoukaz, K. Kilian, P. Kowina, A. Misiak, P. Moskal, W. Oelert, C. Piskor-Ignatowicz, J. Przerwa, C. Quentmeier, T. Rozek, R. Santo, G. Schepers, T. Sefzick, M. Siemaszko, A. Täschner, P. Winter, M. Wolke, P. Wüstner, W. Zipper, *Drift chamber with a c-shaped frame*, Nucl. Instrum. Meth. A **541**, 574 (2005). Cited by 32 records.

19. A. Khoukaz, I. Geck, C. Quentmeier, H.-H. Adam, A. Budzanowski, R. Czyzykiewicz, D. Grzonka, L. Jarczyk, K. Kilian, P. Kowina, N. Lang, T. Lister, P. Moskal, W. Oelert, C. Piskor-Ignatowicz, T. Rożek, R. Santo, G. Schepers, T. Sefzick, S. Sewerin, M. Siemaszko, J. Smyrski, A. Strzalkowski, A. Taschner, P. Winter, M. Wolke, P. Wüstner, W. Zipper, *Total and differential cross sections for the* $pp \to pp\eta$*' reaction near threshold*, Eur. Phys. J. **A 20**, 345 (2004). Cited by 44 records.

20. P. Moskal, H.-H. Adam, A. Budzanowski, R. Czyżykiewicz, D. Grzonka, M. Janusz, L. Jarczyk, B. Kamys, A. Khoukaz, K. Kilian, P. Kowina, K. Nakayama, W. Oelert, C. Piskor-Ignatowicz, J. Przerwa, T. Rożek, R. Santo, G. Schepers, T. Sefzick, M. Siemaszko, J. Smyrski, S. Steltenkamp, A. Täschner, P. Winter, M. Wolke, P. Wüstner, W. Zipper , *Experimental study of* $pp\eta$ *dynamics in the* $pp \to pp\eta$ *reaction*, Phys. Rev. **C 69**, 025203 (2004). Cited by 97 records.

21. P. Kowina, M. Wolke, H.-H. Adam, A. Budzanowski, R. Czyżykiewicz, D. Grzonka, J. Haidenbauer, M. Janusz, L. Jarczyk, B. Kamys, A. Khoukaz, K. Kilian, P. Moskal, W. Oelert, C. Piskor-Ignatowicz, J. Przerwa, C. Quentmeier, T. Rożek, R. Santo, G. Schepers, T. Sefzick, M. Siemaszko, J. Smyrski, S. Steltenkamp, A. Strzalkowski, A. Täschner, P. Winter, P. Wüstner, W. Zipper, *Energy dependence of the* Λ/Σ_0 *produc-*

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tion cross section ratio in pp interactions, Eur. Phys. J. **A 22**, 293 (2004). Cited by 58 records

22. P. Moskal, H.-H. Adam, A. Budzanowski, R. Czyżykiewicz, D. Grzonka, M. Janusz, L. Jarczyk, B. Kamys, A. Khoukaz, K. Kilian, C. Kolf, P. Kowina, T. Lister, W. Oelert, C. Piskor-Ignatowicz, J. Przerwa, C. Quentmeier, T. Rożek, R. Santo, G. Schepers, T. Sefzick, M. Siemaszko, J. Smyrski, A. Strzalkowski, A. Täschner, P. Winter, M. Wolke, P. Wüstner, W. Zipper , *Upper limit for the cross section of the overlapping scalar resonances f0(980) and a0(980) produced in proton proton collisions in the range of the reaction threshold*, J. Phys. **G 29**, 2235 (2003). Cited by 10 records.

23. P. Winter, H.-H. Adam, F. Bauer, A. Budzanowski, R. Czyżykiewicz, T. Götz, D. Grzonka, L. Jarczyk, A. Khoukaz, K. Kilian, C. Kolf, P. Kowina, N. Lang, T. Lister, P. Moskal, W. Oelert, C. Quentmeier, T. Rożek, R. Santo, G. Schepers, T. Sefzick, M. Siemaszko, J. Smyrski, S. Steltenkamp, A. Strzalkowski, M. Wolke, P. Wüstner, W. Zipper, *Analysing power A(y) in the reaction p(pol.)p→ pp η close to threshold*, Phys. Lett. **B 544**, 251 (2002). Cited by 30 records.

24. P. Moskal, H.-H. Adam, A. Budzanowski, T. Götz, D. Grzonka, L. Jarczyk, A. Khoukaz, K. Kilian, C. Kolf, P. Kowina, N. Lang, T. Lister, W. Oelert, C. Quentmeier, R. Santo, G. Schepers, T. Sefzick, M. Siemaszko, J. Smyrski, S. Steltenkamp, A. Strzalkowski, P. Winter, M. Wolke, P. Wüstner, W. Zipper, *On the close to threshold meson production in neutron neutron collisions*, Phys. Lett. **B 517**, 295 (2001). Cited by 7 records.

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Talks:

- P. Winter, *The New g-2 Experiment at Fermilab*. Invited Talk at the APS April Meeting 2016, Salt Lake City, UT, USA, April 1619, 2016.
- P. Winter, *The Muon g-2 experiment at Fermilab: Current status and prospects*. Seminar at the Physics Division, Argonne National Laboratory, Lemont, IL, USA, November 02, 2015.
- P. Winter, *Surface Muon Beams*. Talk at Snowmass on the Mississippi, Minneapolis, MN, USA, July 29 – August 6, 2013
- P. Winter, *Muon Physics around the world and at the Intensity Frontier*. Invited talk at the CTEQ 2013 Summer School, Pittsburgh, PA, USA, July, 2013
- P. Winter, *Muon g-2 at Fermilab*. Invited talk at the 46th Annual Fermilab Users Meeting, Batavia, IL, USA, June 13, 2013
- P. Winter, *Muon capture on the proton*, Seminar at the Physics Division, Argonne National Laboratory, Lemont, IL, USA, May 9, 2013.
- P. Winter, *g-2 at Fermilab: A New Spin to an Old Experiment*. Seminar at the HEP Division, Argonne National Laboratory, Lemont, IL, USA, October 30, 2012
- P. Winter, *Precision Physics with Muons: Unveiling Physics at the ppm Level*. Seminar at the HEP Division, Argonne National Laboratory, Lemont, IL, USA, April 26, 2012
- P. Winter, *The new g-2 experiment: Taking the muon's anomalous moment to the next precision level*, Seminar at Michigan State University, East Lansing, MI, April 10, 2012.
- P. Winter, *Precision Physics with Muons: Unveiling Physics at the ppm Level*. Particle Physics Seminar, Brookhaven National Laboratory, Upton, NY, USA, April 03, 2012
- P. Winter, *Muon capture on the proton – Final results from the MuCap experiment*. Invited talk at the APS April Meeting, Atlanta, GA, USA, April 1, 2012
- P. Winter, *Precision physics with muons*. Colloquium presented the University of Heidelberg, Heidelberg, Germany, December 20, 2011.
- P. Winter, *Muon Capture on the Proton*, arXiv:1110.5090. Talk presented at the 19th Particles & Nuclei International Conference, MIT, Cambridge, MA, USA (PANIC 2011).
- P. Winter, *Precision physics with muons*. Colloquium presented at the Paul Scherrer Institute, Switzerland, May 18, 2011.
- P. Winter, *Precision physics with muons*. Colloquium presented at the George Washington University, Washington, DC, USA, March 29, 2011.

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- P. Winter, *Muon capture at PSI*, Physics Procedia, Vol 17, 239-244 (2011), arXiv:1012.3859. Invited talk presented at the 2nd International Workshop on the Physics of fundamental Symmetries and Interactions, Villigen, Switzerland (PSI2010).
- P. Winter, *In a muon's lifetime: From Fermi's constant to "calibrating" the sun.* Invited talk presented at the 12th Annual Meeting of the Northwest Section of the APS, Walla Walla, USA, October 01–02, 2010.
- P. Winter, *In a muon's lifetime: From Fermi's constant to "calibrating" the sun.* Seminar presented at the University of Maryland, College Park, MD, USA, March 25, 2009.
- P. Winter, *In a muon's lifetime: From Fermi's constant to "calibrating" the sun.* Nuclear seminar presented at the George Washington University, Washington, DC, USA, March 24, 2009.
- P. Winter, *In a muon's lifetime: From Fermi's constant to "calibrating" the sun.* Seminar presented at the University of Virginia, Charlottesville, VA, USA, March 23, 2009.
- P. Winter, *In a muon's lifetime: From Fermi's constant to "calibrating" the sun.* Seminar presented at Jefferson Laboratory, Newport News, VA, USA, March 20, 2009.
- P. Winter, *In a muon's lifetime: From Fermi's constant to "calibrating" the sun.* Seminar presented at the James Madison University, Harrisonburg, USA, March 19, 2009.
- P. Winter et al., *The MuCap experiment: Muon capture as a probe of the nucleon's axial structure.* Invited talk presented at the International Conference on Hadron Physics, Canakale, Turkey (TROIA07).
- P. Winter et al., *Strangeness production at threshold.* Talk presented at the 6th International Conference on Nuclear Physics Conference at Storage Rings, Julich, Germany (STORI 2005).
- P. Winter et al., *Study of S = -2 baryonic states at FLAIR*, AIP Conf. Proc. 796, 168 (2005). Talk presented at the International Conference on Low Energy Antiproton Physics, Bonn, Germany (LEAP'05).
- P. Winter, *Open strangeness threshold production at COSY-11*, AIP Conf. Proc. 768, 300 (2005). Talk presented at the 19th European Few-Body Conference on Problems in Physics, Groningen, The Netherlands (EFB 19).
- P. Winter et al., *Associated strangeness production in pp collisisons near threshold*, AIP Conf. Proc. 717, 912 (2004). Talk presented 10th International Conference on Hadron Spectroscopy, Aschaffenburg, Germany (HADRON03).
- P. Winter et al., *Towards the excitation function of the* $pp \to ppK^+K^-$ *reaction at COSY-11*, in *Proc. of the 2nd Symposium on Threshold Meson Production and pp and*

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pd Interactions, Schriften des FZ-Jülich, Matter and Materials. Forschungszentrum Jülich, 2004.

- P. Winter et al., *First close to threshold measurement of the analyzing power A(y) in the reaction polarized-p* $p \to pp\eta$, Eur. Phys. J. **A 18**, (2003), 355–357. Talk presented at the Conference on Quarks and Nuclear Physics, Jülich, Germany (QNP 2002).
- P. Winter, *Analysing power* A_y *in the reaction* $\vec{p}p \to pp\eta$ *near threshold*, in *Meson 2002 - 7th International Workshop on Meson Production, Properties and Interaction*, L. Jarczyk, A. Magiera, C. Guaraldo und H. Machner, eds. World Scientific, 2003.
- P. Winter, *First measurement of the analysing power in the reaction* $\vec{p}p \to pp\eta$, in *Proceedings of the symposium on the threshold meson production in pp and pd interaction*, Schriften des FZ-Jülich, Matter and Materials. Forschungszentrum Jülich, 2001.