

## **Publications (peer reviewed Journals)**

1. **Energy sharing and asymmetry parameters for photo double ionization of helium 100 eV above threshold in single-particle and Jacobi coordinates**  
A. Knapp, M. Walter, Th. Weber, A.L. Landers, S. Schössler, T. Jahnke, M. Schöffler, J. Nickles, S. Kammer, O. Jagutzki, L. Ph. H. Schmidt, T. Osipov, J. Rösch, M. H. Prior, H. Schmidt-Böcking, C. L. Cocke, J. Feagin and R. Dörner  
J. Phys. B: At. Mol. Opt. Phys., **35**, L521–L526, 2002 (6 pages)
2. **Auger Electron Emission from Fixed-in-Space CO**  
Th. Weber, M. Weckenbrock, M. Balsler, L. Schmidt, O. Jagutzki, W. Arnold, O. Hohn, M. Schöffler, E. Arenholz, T. Young, T. Osipov, L. Foucar, A. De Fanis, R. Díez Muiño, H. Schmidt-Böcking, C. L. Cocke, M. H. Prior and R. Dörner  
Phys. Rev. Lett., **90**, 153003, 2003 (4 pages)
3. **Doubly Excited States in Helium Close to the Double Ionization Threshold: Angular and Energy Resolved Partial Cross Sections**  
A. Czasch, M. Schöffler, T. Jahnke, S. Schössler, M. Hattass, Th. Weber, M. Weckenbrock, J. Titze, C. Wimmer, A. Staudte, S. Kammer, S. Voss, R. Dörner, H. Schmidt-Böcking, J. M. Rost, T. Schneider and C. Liu  
Physica Scripta. Vol., **T110**, 141, 2004 (3 pages)
4. **Fully Differential Study of Transfer Ionization Processes - a View into Correlated Many Particle Dynamics**  
L. Ph. H. Schmidt, F. Afaneh, M. Schöffler, J. Titze, O. Jagutzki, Th. Weber, K. E. Stiebing, R. Dörner and H. Schmidt-Böcking  
Physica Scripta. Vol., **T110**, 379–383, 2004 (5 pages)
5. **Fully Differential Rates for Femtosecond Multiphoton Double Ionization of Neon**  
M. Weckenbrock, D. Zeidler, A. Staudte, Th. Weber, M. Schöffler, M. Meckel, S. Kammer, M. Smolarski, O. Jagutzki, V. R. Bhardwaj, D. M. Rayner, D. M. Villeneuve, P. B. Corkum and R. Dörner  
Phys. Rev. Lett., **92**, 213002, 2004 (4 pages)  
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6. **Vibrationally resolved K-shell photoionization of CO with circularly polarized light**  
T. Jahnke, L. Foucar, J. Titze, R. Wallauer, T. Osipov, E. P. Benis, A. Alnaser, O. Jagutzki, W. Arnold, S. K. Semenov, N. A. Cherepkov, L. Ph. H. Schmidt, A. Czasch, A. Staudte, M. Schöffler, C. L. Cocke, M. H. Prior, H. Schmidt-Böcking and R. Dörner  
Phys. Rev. Lett., **93**, 083002, 2004 (4 pages)
7. **Experimental Observation of Interatomic Coulombic Decay in Neon Dimers**  
T. Jahnke, A. Czasch, M. S. Schöffler, S. Schössler, A. Knapp, M. Kász, J. Titze, C. Wimmer, K. Kreidi, R. Grisenti, O. Jagutzki, U. Hergenhahn, H. Schmidt-Böcking and R. Dörner  
Phys. Rev. Lett., **93**, 163401, 2004 (4 pages)

8. **Double Ionization by one and many photons**  
R. Dörner, H. Schmidt-Böcking, Th. Weber, T. Jahnke, M. Schöffler, A. Knapp, M. Hattass, A. Czasch, L. Schmidt and O. Jagutzki  
Rad. Phys. Chem., **70**, 191, 2004 (16 pages)
  
9. **Many-particle dynamics in atomic and molecular physics investigated with the COLTRIMS-technique: New insight into e-e-correlation**  
H. Schmidt-Böcking, R. Dörner, O. Jagutzki, T. Jahnke, V. Mergel, L. Schmidt, Th. Weber, A. Czasch, C. Wimmer, M. Hattass, A. Knapp, M. Schöffler, C.L. Cocke, M. Prior, A. Kheifets, E. Weigold and F. Afaneh  
Nuclear Physics **A 737**, 306, 2004 (8 pages)
  
10. **Charge Exchange and X-Ray Emission in 70 MeV/u Bi – Au Collisions**  
P. Verma, P. H. Mokler, A. Bräuning-Demian, H. Bräuning, E. Berdermann, S. Chatterjee, A. Gumberidze, S. Hagmann, C. Kozhuharov, A. Orsic-Muthig, R. Reuschl, M. Schöffler, U. Spillmann, Th. Stöhlker, Z. Stachura, S. Tashenov and M. A. Wahab  
Nuclear Instruments and Methods in Physics Research B, **235**, 309, 2005 (6 pages)
  
11. **Photo double ionization of helium 100 eV and 450 eV above threshold: I. Linearly polarized light**  
A. Knapp, A. Kheifets, I. Bray, Th. Weber, A. L. Landers, S. Schössler, T. Jahnke, J. Nickles, S. Kammer, O. Jagutzki, L. Ph. H. Schmidt, M. Schöffler, T. Osipov, M. H. Prior, H. Schmidt-Böcking, C. L. Cocke and R. Dörner  
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12. **Photo double ionization of helium 100 eV and 450 eV above threshold: II. Circularly polarized light**  
A. Knapp, A. Kheifets, I. Bray, Th. Weber, A. L. Landers, S. Schössler, T. Jahnke, J. Nickles, S. Kammer, O. Jagutzki, L. Ph. H. Schmidt, M. Schöffler, T. Osipov, M. H. Prior, H. Schmidt-Böcking, C. L. Cocke and R. Dörner  
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13. **Photo double ionization of helium 100 eV and 450 eV above threshold: III. Gerade and ungerade amplitudes and their relative phases**  
A. Knapp, A. Kheifets, I. Bray, Th. Weber, A. L. Landers, S. Schössler, T. Jahnke, J. Nickles, S. Kammer, O. Jagutzki, L. Ph. H. Schmidt, M. Schöffler, T. Osipov, M. H. Prior, H. Schmidt-Böcking, C. L. Cocke and R. Dörner  
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14. **Partial Photoionization Cross Sections and Angular Distributions for Double Excitation of Helium up to the N=13 Threshold**  
A. Czasch, M. Schöffler, M. Hattass, S. Schössler, T. Jahnke, Th. Weber, A. Staudte, J. Titze, C. Wimmer, S. Kammer, M. Weckenbrock, S. Voss, R. E. Grisenti, O. Jagutzki, L. Ph. H. Schmidt, H. Schmidt-Böcking, R. Dörner, J. M. Rost, T. Schneider, C.-N. Liu, I. Bray, A. S. Kheifets and K. Bartschat  
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15. **Transfer ionization process  $p + \text{He} \rightarrow \text{H}^0 + \text{He}^{2+} + e^-$  with the ejected electron detected in the plane perpendicular to the incident beam direction**  
A. L. Godunov, Colm T. Whelan, H. R. J. Walters, V. S. Schipakov, M. Schöffler,  
V. Mergel, R. Dörner, O. Jagutzki, L. Ph. H. Schmidt, J. Titze and H. Schmidt-Böcking  
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16. **Many-particle fragmentation processes in atomic and molecular physics - new insight into the world of correlation**  
H. Schmidt-Böcking, M. S. Schöffler, T. Jahnke, A. Czasch, V. Mergel, L. Schmidt,  
R. Dörner, O. Jagutzki, M. Hattass, Th. Weber, E. Weigold, H. T. Schmidt, R. Schuch,  
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Nuclear Instruments and Methods in Physics Research B, **233**, 3–11, 2005 (9 pages)
  
17. **Photo induced multiple fragmentation of atoms and molecules: Dynamics of Coulombic many-particle systems studied with the COLTRIMS reaction microscope**  
A. Czasch, L. Schmidt, T. Jahnke, T. Weber, O. Jagutzki, S. Schössler, M. Schöffler,  
R. Dörner, H. Schmidt-Böcking  
Phys. Lett. A, **347**, 95-102, 2005 (8 pages)
  
18. **Revealing the effect of angular correlation in the ground-state He wavefunction: a coincidence study of the transfer ionization process**  
M. Schöffler, A. L. Godunov, Colm T. Whelan, H. R. J. Walters, V. S. Schipakov,  
V. Mergel, R. Dörner, O. Jagutzki, L. Ph. H. Schmidt, J. Titze, E. Weigold and  
H. Schmidt-Böcking  
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19. **Erratum: Partial Photoionization Cross Sections and Angular Distributions for Double Excitation of Helium up to the N=13 Threshold [Phys. Rev. Lett. 95, 243003 (2005)]**  
A. Czasch, M. Schöffler, M. Hattass, S. Schössler, T. Jahnke, Th. Weber, A. Staudte,  
J. Titze, C. Wimmer, S. Kammer, M. Weckenbrock, S. Voss, R. E. Grisenti, O. Jagutzki,  
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Phys. Rev. Lett., **97**, 259902, 2006 (4 pages)
  
20. **Spectroscopy of superheavy quasimolecules**  
P. Verma, P. H. Mokler, A. Bräuning-Demian, C. Kozhuharov, H. Bräuning, F. Bosch,  
D. Liesen, T. Stöhlker, S. Hagmann, S. Chatterjee, A. Gumberidze, R. Reuschl,  
M. Schöffler, U. Spillmann, A. Orsic Muthig, S. Tachenov, Z. Stachura and M. A. Wahab  
Rad. Phys. Chem., **75**, 2014-2018, 2006 (5 pages)
  
21. **Probing superheavy quasimolecular collisions with incoming inner shell vacancies**  
P. Verma, P. H. Mokler, A. Bräuning-Demian, H. Bräuning, E. Berdermann, S. Chatterjee,  
A. Gumberidze, S. Hagmann, C. Kozhuharov, A. Orsic-Muthig, R. Reuschl, M. Schöffler,  
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Nuclear Instruments and Methods in Physics Research B, **245**, 56-60, 2006 (5 pages)

22. **Nondipole effects in the angular distribution of photoelectrons from the C K shell of the CO molecule**  
K. Hosaka, J. Adachi, A. V. Golovin, M. Takahashi, T. Teramoto, N. Watanabe, T. Jahnke, Th. Weber, M. Schöffler, L. Schmidt, T. Osipov, O. Jagutzki, A. L. Landers, M. H. Prior, H. Schmidt-Böcking, R. Dörner, A. Yagishita, S. K. Semenov and N. A. Cherepkov  
Phys. Rev. A, **73**, 022716, 2006 (8 pages)
23. **Single photon induced symmetry breaking of H<sub>2</sub> dissociation**  
F. Martín, J. Fernández, T. Havermeier, L. Foucar, Th. Weber, K. Kreidi, M. Schöffler, L. Schmidt, T. Jahnke, O. Jagutzki, A. Czasch, E. P. Benis, T. Osipov, A. L. Landers, A. Belkacem, M. H. Prior, H. Schmidt-Böcking, C. L. Cocke and R. Dörner  
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24. **Few-Photon Multiple Ionization of Ne and Ar by Strong Free-Electron-Laser Pulses**  
R. Moshhammer, Y. H. Jiang, L. Foucar, A. Rudenko, Th. Ergler, C. D. Schröter, S. Lüdemann, K. Zrost, D. Fischer, J. Titze, T. Jahnke, M. Schöffler, T. Weber, R. Dörner, T. J. M. Zouros, A. Dorn, T. Ferger, K. U. Kühnel, S. Düsterer, R. Treusch, P. Radcliffe, E. Plönjes and J. Ullrich  
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25. **Czasch et al. Reply (A Reply to the Comment by L. Malegat.):**  
A. Czasch, M. Schöffler, M. Hattass, S. Schössler, T. Jahnke, Th. Weber, A. Staudte, J. Titze, C. Wimmer, S. Kammer, M. Weckenbrock, S. Voss, R. E. Grisenti, O. Jagutzki, L. Ph. Schmidt, H. Schmidt-Böcking, R. Dörner, J.-M. Rost, T. Schneider, Chien-Nan Liu, I. Bray, A. S. Kheifets, and K. Bartschat  
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26. **Attosecond Strobing of Two-Surface Population Dynamics in Dissociating H<sub>2</sub><sup>+</sup>**  
A. Staudte, D. Pavicic, S. Chelkowski, D. Zeidler, M. Meckel, H. Niikura, M. Schöffler, S. Schössler, B. Ulrich, P. P. Rajeev, Th. Weber, T. Jahnke, D. M. Villeneuve, A. D. Bandrauk, C. L. Cocke, P. B. Corkum and R. Dörner  
Phys. Rev. Lett., **98**, 073003, 2007 (4 pages)  
(selected for Virtual Journal of Ultra Fast Science – March 2007)
27. **Dynamics of electron-capture-to-continuum (ECC) formation in slow ion-atom collisions**  
F. Afaneh, L. Ph. H. Schmidt, M. Schöffler, K. E. Stiebing, J. Al-Jundi, H. Schmidt-Böcking and R. Dörner  
J. Phys. B: At. Mol. Opt. Phys., **40**, 1745-1753, 2007 (9 pages)
28. **Photoelectron and ICD electron angular distributions from fixed-in-space neon dimers**  
T. Jahnke, A. Czasch, M. Schöffler, S. Schössler, M. Kász, J. Titze, K. Kreidi, R. E. Grisenti, A. Staudte, O. Jagutzki, L. Ph. H. Schmidt, S. K. Semenov, N. A. Cherepkov, H. Schmidt-Böcking and R. Dörner  
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29. **Orientation and impact-parameter dependence of dissociative ionization of H<sub>2</sub> by slow ion impact**  
 F. Afaneh, L. Ph. H. Schmidt, M. Schöffler, K. E. Stiebing, J. Al-Jundi, H. Schmidt-Böcking and R. Dörner  
 J. Phys. B: At. Mol. Opt. Phys., **40**, 3467-3475, 2007 (9 pages)
30. **Imaging of continuum states of the He<sub>2</sub><sup>2+</sup> quasimolecule**  
 L. Ph. H. Schmidt, M. S. Schöffler, K. E. Stiebing, H. Schmidt-Böcking, and R. Dörner, F. Afaneh, Th. Weber  
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31. **Experimental separation of virtual photon exchange and electron transfer in interatomic coulombic decay of neon dimers**  
 T. Jahnke, A. Czasch, M. Schöffler, S. Schössler, M. Kász, J. Titze, K. Kreidi, R. E. Grisenti, A. Staudte, O. Jagutzki, L. Ph. H. Schmidt, Th. Weber, H. Schmidt-Böcking, K. Ueda and R. Dörner  
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32. **A two-electron double slit experiment - interference and entanglement in photo double ionization of H<sub>2</sub>**  
 D. Akoury, K. Kreidi, T. Jahnke, Th. Weber, A. Staudte, M. Schöffler, N. Neumann, J. Titze, L. Ph. H. Schmidt, A. Czasch, O. Jagutzki, R. A. Costa Fraga, R. E. Grisenti, R. Díez Muino, N. A. Cherepkov, S. K. Semenov, P. Ranitovic, C. L. Cocke, T. Osipov, H. Adaniya, J. C. Thompson, M. H. Prior, A. Belkacem, A. Landers, H. Schmidt-Böcking and R. Dörner  
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33. **Binary and recoil collisions in strong field double ionization of helium**  
 A. Staudte, C. Ruiz, M. Schöffler, S. Schössler, D. Zeidler, Th. Weber, M. Meckel, D. M. Villeneuve, P. B. Corkum, A. Becker and R. Dörner  
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34. **Evidence of interatomic Coulombic decay in ArKr after Ar 2p Auger decay**  
 Y. Morishita, N. Saito, I. H. Suzuki, H. Fukuzawa, X.-J. Liu, K. Sakai, G. Prümper, K. Ueda, H. Iwayama, K. Nagaya, M. Yao, K. Kreidi, M. Schöffler, T. Jahnke, S. Schössler, R. Dörner, T. Weber, J. Harries and Y. Tamenori  
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35. **Interference in the collective electron momentum in double ionization of H<sub>2</sub>**  
 K. Kreidi, D. Akoury, T. Jahnke, Th. Weber, A. Staudte, M. Schöffler, N. Neumann, J. Titze, L. Ph. H. Schmidt, A. Czasch, O. Jagutzki, R. A. Costa-Fraga, R. E. Grisenti, M. Smolarski, P. Ranitovic, C. L. Cocke, T. Osipov, H. Adaniya, J. C. Thompson, M. H. Prior, A. Belkacem, A. L. Landers, H. Schmidt-Böcking, and R. Dörner  
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36. **Fragmentation pathways for selected electronic states of the acetylene dication**  
 T. Osipov, T. N. Rescigno, T. Weber, S. Miyabe, T. Jahnke, A. S. Alnaser, M.P. Hertlein, O. Jagutzki, L. Ph. H. Schmidt, M. Schöffler, L. Foucar, S. Schössler, T. Havermeier, M. Odenweller, S. Voss, B. Feinberg, A. L. Landers, M. H. Prior, R. Dörner, C. L. Cocke and A. Belkacem  
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37. **Ultrafast probing of core hole localization in N<sub>2</sub>**  
M. S. Schöffler, J. Titze, N. Petridis, T. Jahnke, K. Cole, L. Ph. H. Schmidt, A. Czasch, D. Akoury, O. Jagutzki, J. B. Williams, N. A. Cherepkov, S. K. Semenov, C. W. McCurdy, T. N. Rescigno, C. L. Cocke, T. Osipov, S. Lee, M. H. Prior, A. Belkacem, A. L. Landers, H. Schmidt-Böcking, Th. Weber and R. Dörner  
 Science, **320**, 920, 2008 (4 pages)  
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38. **Dynamics of Two-Electron Photoemission from Cu(111)**  
 M. Hattass, T. Jahnke, S. Schössler, A. Czasch, M. Schöffler, L. Ph. H. Schmidt, B. Ulrich, O. Jagutzki, F. O. Schumann, C. Winkler, J. Kirschner, R. Dörner and H. Schmidt-Böcking  
 Physical Review, **B 77**, 165432, 2008 (9 pages)
39. **Attosecond angular streaking**  
 P. Eckle, M. Smolarski, P. Schlup, J. Biegert, A. Staudte, M. Schöffler, H. G. Müller, R. Dörner and U. Keller  
 Nature Physics, **4**, 565, 2008 (6 pages)  
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40. **Photo Double Ionization of H<sub>2</sub>: Two center interference and its dependence on the internuclear distance**  
M. S. Schöffler, K. Kreidi, D. Akoury, T. Jahnke, A. Staudte, N. Neumann, J. Titze, L. Ph. H. Schmidt, A. Czasch, O. Jagutzki, R.A. Costa Fraga, R. E. Grisenti, M. Smolarski, P. Ranitovic, C.L. Cocke, T. Osipov, H. Adaniya, S. Lee, J.C. Thompson, M. H. Prior, A. Belkacem, Th. Weber, A. Landers, H. Schmidt-Böcking, and R. Dörner  
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41. **Localization of inner-shell photoelectron emission and interatomic Coulombic decay in Ne<sub>2</sub>**  
 K. Kreidi, T. Jahnke, Th. Weber, T. Havermeier, R. E. Grisenti, X Liu, Y. Morisita, S. Schössler, L. Ph. H. Schmidt, M. Schöffler, M. Odenweller, N. Neumann, L. Foucar, J. Titze, B. Ullrich, F. Sturm, C. Stuck, R. Wallauer, S. Voss, I. Lauter, H. K. Kim, M. Rudloff, H. Fukuzawa, G. Prümper, N. Saito, K. Ueda, A. Czasch, O. Jagutzki, H Schmidt-Böcking, S. K. Semenov, N. A. Cherepkov and R. Dörner  
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42. **Recoil-ion momentum distributions for two-photon double ionization of He and Ne by 44 eV free-electron laser radiation**  
 A. Rudenko, L. Foucar, M. Kurka, Th. Ergler, K. U. Kühnel, Y. H. Jiang, A. Voitkiv, B. Najjari, A. Kheifets, S. Lüdemann, T. Havermeier, M. Smolarski, S. Schössler, K. Cole, M. Schöffler, R. Dörner, S. Düsterer, W. Li, B. Keitel, R. Treusch, M. Gensch, C. D. Schröter, R. Moshhammer and J. Ullrich  
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43. **Young-Type Interference in Collisions between Hydrogen Molecular Ions and Helium**  
 L. Ph. H. Schmidt, S. Schössler, F. Afaneh, M. Schöffler, K. E. Stiebing, H. Schmidt-Böcking and R. Dörner  
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44. **Relaxation processes following 1s photoionization and Auger decay in Ne<sub>2</sub>**  
 K. Kreidi, T. Jahnke, Th. Weber, T. Havermeier, X Liu, Y. Morisita, S. Schössler, L. Ph. H. Schmidt, M. Schöffler, M. Odenweller, N. Neumann, L. Foucar, J. Titze, B. Ullrich, F. Sturm, C. Stuck, R. Wallauer, S. Voss, I. Lauter, H. K. Kim, M. Rudloff, H. Fukuzawa, G. Prümper, N. Saito, K. Ueda, A. Czasch, O. Jagutzki, H. Schmidt-Böcking, S. Stoychev, Ph. V. Demekhin and R. Dörner  
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45. **Interatomic Coulombic decay following the Auger decay: Experimental evidence in rare-gas dimmers**  
 K. Ueda, H. Fukuzawa, X.-J. Liu, K. Sakai, G. Prümper, Y. Morishita, N. Saito, I. H. Suzuki, K. Nagaya, H. Iwayama, M. Yao, K. Kreidi, M. Schöffler, T. Jahnke, S. Schössler, R. Dörner, Th. Weber, J. Harries, Y. Tamenori  
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46. **Few-Photon Multiple Ionization of N<sub>2</sub> by VUV Free-Electron Laser Radiation**  
 Y. H. Jiang, A. Rudenko, M. Kurka, K. U. Kühnel, Th. Ergler, L. Foucar, M. Schöffler, S. Schössler, T. Havermeier, M. Smolarski, K. Cole, R. Dörner, S. Düsterer, R. Treusch, M. Gensch, C. D. Schröter, R. Moshhammer and J. Ullrich  
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47. **Core-Hole Screening as a Probe for Metal-to-Nonmetal Transition in Lead Clusters**  
 V. Senz, T. Fischer, P. Oelßner, J. Tiggesbäumker, J. Stanzel, C. Bostedt, H. Thomas, M. Schöffler, L. Foucar, M. Martins, J. Neville, M. Neeb, Th. Möller, W. Wurth, E. Rühl, R. Dörner, H. Schmidt-Böcking, W. Eberhardt, G. Ganteför, R. Treusch, P. Radcliffe and K.-H. Meiwes-Broer  
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48. **Two-center double-capture interference in fast He<sup>2+</sup> + H<sub>2</sub> collisions**  
 D. Misra, H. T. Schmidt, M. Gudmundsson, D. Fischer, N. Haag, H. A. B. Johansson, A. Källberg, B. Najjari, P. Reinhed, R. Schuch, M. Schöffler, A. Simonsson, A. B. Voitkiv, and H. Cederquist  
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49. **Single Photon Double Ionization of H<sub>2</sub> by Circularly Polarized Photons at Photon Energy of 160 eV**  
 K. Kreidi, D. Akoury, T. Jahnke, Th. Weber, A. Staudte, M. S. Schöffler, N. Neumann, J. Titze, L. Ph. H. Schmidt, A. Czasch, O. Jagutzki, R. A. Costa Fraga, R. E. Grisenti, R. Díez Muino, N. A. Cherepkov, S. K. Semenov, P. Ranitovic, C. L. Cocke, T. Osipov, H. Adaniya, J. C. Thompson, M. H. Prior, A. Belkacem, A. Landers, H. Schmidt-Böcking, and R. Dörner  
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157. **Ion impact induced ionization/fragmentation dynamics of rare gas Dimers**  
H.-K. Kim, J. Titze, M. Schöffler, F. Trinter, M. Waitz, J. Voigtsberger, H. Sann, M. Meckel, C. Stuck, U. Lenz, D. Metz, A. Jung, M. Odenweller, N. Neumann, B. Ulrich, R. Costa Fraga, N. Petridis, S. Schössler, K. Ullmann-Pfleger, R. Grisenti, A. Czasch, O. Jagutzki, L. Schmidt, T. Jahnke, H. Schmidt-Böcking, J. Becht, H. Gassert, H. Merabet, J. Rangama, C. L. Zhou, A. Cassimi and R. Dörner  
Journal of Physics Conference Series, **488**, 102006, 2014, (1 page)
158. **Experimental observation of the vibrational wavefunction of  $4\text{He}_2$ ,  $4\text{He}_3$  and  $4\text{He}^{23}\text{He}$  using strong laser-fields**  
J. Voigtsberger, J. Becht, N. Neumann, F. Sturm, M. Kunitski, A. Kalinin, J. Wu, S. Zeller, M. Schöffler, W. Schöllkopf, D. Bressanini, A. Czasch, L. Ph. H. Schmidt, R. Grisenti, T. Jahnke and R. Dörner  
Journal of Physics Conference Series, **488**, 132024, 2014, (1 page)
159. **First light on 3d photoionization of multiply charged xenon ions: a new photon-ion merged beam setup at PETRA III**  
S. Ricz, S. Schippers, T. Buhr, K. Holste, A. Borovik Jr., J. Hellhund, H.-J. Schäfer, D. Schury, S. Klumpp, K. Mertens, M. Martins, R. Flesch, G. Ulrich, E. Rühl, J. Lower, T. Jahnke, D. Metz, L. Schmidt, M. Schöffler, J. B. Williams, R. Dörner, L. Glaser, F. Scholz, J. Seltmann, J. Viefhaus, A. Dorn, A. Wolf, J. Ullrich and A. Müller  
Journal of Physics Conference Series, **488**, 142006, 2014, (1 page)

## **Publications (Monographs)**

160. **Entwicklung und Aufbau eines Abbildungssystems zur Messung von Elektronen jenseits niedriger Energien (Development and construction of an imaging system to measure electrons beyond low energies)**  
M. S. Schöffler, Diploma thesis, Institut für Kernphysik, University Frankfurt, (2002)
  
161. **Grundzustandskorrelationen und dynamische Prozesse untersucht in Ion-Helium-Stößen (Groundstate correlations and dynamical processes investigated in ion-helium-collisions)**  
M. S. Schöffler, PhD thesis, Institut für Kernphysik, University Frankfurt, (2006)



## **Invited talks (international conferences)**

1. **“Transfer ionization in fast p-He collisions: A kinematically complete experiment”**  
ISIAC XVIII, Stockholm-Helsinki, 30<sup>th</sup> July – 1<sup>st</sup> August 2003
2. **„Transfer ionization in fast ion-atom collisions“**  
25. EAS-Frühjahrstagung, Riezlern, Austria, 8<sup>th</sup> February – 13<sup>th</sup> February 2004
3. **“Dissociative charge transfer to HeH<sup>+</sup> and H<sub>2</sub><sup>+</sup>”**  
ECAMP VIII, Rennes, France, 6<sup>th</sup> July – 10<sup>th</sup> July 2004
4. **“Transfer ionization in fast proton He collisions – revealing the non-s<sup>2</sup> contributions in Helium groundstate”**  
13<sup>th</sup> International Symposium on Polarization and Correlation in Electronic and Atomic Collisions and the International Symposium on (e,2e), Double Photoionization and Related Processes, Buenos Aires, Argentina, 28<sup>th</sup> July – 30<sup>th</sup> July 2005
5. **“A kinematically complete study of transfer ionization in fast ion atom collisions: Observing ground state correlations”**  
International Conference on “Many particle spectroscopy of atoms, molecules, clusters and surfaces”, Rome, Italy, 21<sup>st</sup> July – 24<sup>th</sup> July 2006
6. **“Partial photoionization cross sections and angular distributions for double excitation of Helium up to the N=13 threshold”**  
ICES X, Iguacu, Brazil, 28<sup>th</sup> August – 1<sup>st</sup> September 2006
7. **“Transfer ionization in fast ion-atom-collisions – experimental evidences of non-s<sup>2</sup> contributions in helium ground state”**  
19<sup>th</sup> International Conference on the Application of Accelerators in Research and Industry, CAARI, Dallas, USA, 20<sup>th</sup> August – 25<sup>th</sup> August 2006
8. **“Two- and three-electron dynamics in transfer ionization”**  
Invited talk (30 minutes)  
ISIAC XX, Crete, Greece, 1<sup>st</sup> August – 4<sup>th</sup> August 2007
9. **“Probing core hole localization in photo ionization of N<sub>2</sub>”**  
progress report (30 minutes)  
International Conference on “Many particle spectroscopy of atoms, molecules, clusters and surfaces”, Paris, France, 30<sup>th</sup> June – 2<sup>nd</sup> July 2008
10. **“Capture and ionization of the Helium-dimer by ion impact”**  
Invited talk (30 minutes)  
20<sup>th</sup> International Conference on the Application of Accelerators in Research and Industry, CAARI, Dallas, USA, 10<sup>th</sup> August – 15<sup>th</sup> August 2008

11. **“Investigating few particle dynamic – atoms and molecules under the reaction microscope”**  
Invited Lectures (45 minutes)  
24<sup>th</sup> Summer School and International Symposium on the Physics of Ionized Gases, SPIG, Novi Sad, Serbia, 25<sup>th</sup> August – 29<sup>th</sup> August 2008
12. **“Ion Impact Double Ionization of the He Dimer”**  
progress report (30 minutes)  
XXVI International Conference on Photonic Electronic and Atomic Collisions, ICPEAC 2009, Kalamazoo, Michigan, USA, 22<sup>nd</sup> July – 28<sup>th</sup> July 2009
13. **“Double ionization dynamics of Helium dimmers investigated during charged particle impact”**  
progress report (30 minutes)  
62<sup>nd</sup> Gaseous Electronics Conference, GEC 2009, Albany, New York, USA, 20<sup>th</sup> October – 23<sup>rd</sup> October 2009
14. **“Strong field double ionization of Helium with ultra-short circularly polarized light pulses”**  
Invited presentation (20 minutes)  
Symposium on Attoscience and Ultrafast Quantum Control, SASQC11, London, GB, 7<sup>th</sup> September – 9<sup>th</sup> September 2011
15. **“Ion Impact Induced Ionization/Fragmentation Dynamics of Rare Gas Dimers”**  
Invited talk (30 minutes)  
22<sup>nd</sup> International Conference on the Application of Accelerators in Research and Industry, CAARI, Dallas, USA, 5<sup>th</sup> August – 10<sup>th</sup> August 2012
16. **“Double ionization of Helium by fast ions and high energetic photons”**  
Invited talk (30 minutes)  
International Conference on “Many particle spectroscopy of atoms, molecules, clusters and surfaces”, Berlin, Germany, 28<sup>th</sup> August – 1<sup>st</sup> September 2012
17. **“Imaging the vibrational wave function of H<sub>2</sub><sup>+</sup> via dissociative electron transfer”**  
Invited talk (30 minutes)  
2<sup>nd</sup> Joint Symposium on Collisions of Highly-Charged Ions with Molecules and Related Topics, Tokyo, Japan, 18<sup>th</sup> October 2012
18. **“Rare gas dimers interacting with (highly charged) ions - properties and ionization/fragmentation dynamics”**  
Invited talk (30 minutes)  
ISIAC XXIII, Beijing, China, 20<sup>th</sup> July – 22<sup>nd</sup> July 2013
19. **“Transfer ionization of D<sup>+</sup> and He<sup>+</sup> projectile with H<sub>2</sub>-molecules – electron emission dependency on the internuclear axis”**  
special report (15 minutes)  
XXVIII International Conference on Photonic Electronic and Atomic Collisions, ICPEAC 2013, Lanzhou, China, 24<sup>th</sup> July – 30<sup>th</sup> July 2013

20. **“Imaging the vibrational wave function, interference Effects and the Bohr-Einstein-Debate”**  
Invited talk (25 minutes)  
17<sup>th</sup> International Symposium on Polarization and Correlation in Electronic and Atomic Collisions and the International Symposium on (e,2e), Double Photoionization and Related Processes, Hefei, China, 1<sup>st</sup> August – 3<sup>rd</sup> August 2013
21. **“The nasty details of COLTRIMS – learn to configure a COLTRIMS spectrometer”**  
Invited lecture (60 minutes)  
Electron dynamics of chiral systems, Summer School, Kassel, Germany, 21<sup>st</sup> August – 23<sup>rd</sup> August
22. **“Absolute configuration and measurement of the ELCH molecule”**  
Invited talk (20 minutes)  
Electron dynamics of chiral systems, Summer School, Kassel, Germany, 21<sup>st</sup> August – 23<sup>rd</sup> August
23. **“Time resolved coincident momentum imaging at XFEL”**  
Invited talk (25 minutes)  
SQS-SCS XFEL-Meeting, Hamburg, Germany, 30th January 2014
24. **“How to determine the handedness of a chiral molecule”**  
Invited talk (30 minutes)  
High-Intensity Lasers and High-Field Phenomena (HILAS), Berlin, Germany, 18<sup>th</sup> – 20<sup>th</sup> March 2014
25. **“Determination of chiral molecule’s handedness”**  
Invited talk (30 minutes)  
Springmeeting of the German Physical Society (DPG), Berlin, Germany, 17<sup>th</sup> – 21<sup>st</sup> March 2014