

List of Publications 1987-2021 Reinhard Dörner

Journal	Sum
	400
Science/Nature	12
Nat.Phys./Nat.Phot.	11
Nat.Comm./PNAS/SciAdv	9
Phys.Rev.Lett., Phys.Rev.X, J.P.C.Lett.	91
Phys.Rev A/B/R,Chem.Phys	81
J.Phys.B	54
other refereed	81

Publications 2021

- [1] M. Kunitski, Q. Guan, H. Maschkiwitz, J. Hahnenbruch, S. Eckart, S. Zeller, A. Kalinin, M. Schöffler, L.Ph.H. Schmidt, T. Jahnke, D. Blume and R. Dörner
Ultrafast manipulation of the weakly bound helium dimer
Nature Physics 17, 174178 (2021)
- [2] A. Hartung, S. Brennecke, K. Lin, D. Trabert, K. Fehre, J. Rist, M.S. Schöffler, T. Jahnke, L. Ph. H. Schmidt, M. Kunitski, M. Lein, R. Dörner, and S. Eckart
Electric Nondipole Effect in Strong-Field Ionization
Phys.Rev.Lett. 126, 053202 (2021)

Publications 2020

- [3] S. Grundmann, D. Trabert, K. Fehre, N. Strenger, A. Pier, L. Kaiser, M. Kircher, M. Weller, S. Eckart, L. Ph. H. Schmidt, F. Trinter, T. Jahnke, M. S. Schöffler, and R. Dörner
Zeptosecond Birth Time Delay in Molecular Photoionization
Science, 370, 339-341 (2020)
- [4] M. Kircher, F. Trinter, S. Grundmann, I. Vela-Perez, S. Brennecke, N. Eicke, J. Rist, S. Eckart, S. Houamer, O. Chuluunbaatar, Y. V. Popov, I. P. Volobuev, K. Bagschik, M. N. Piancastelli, M. Lein, T. Jahnke, M. S. Schöffler, and R. Dörner
Kinematically complete experimental study of Compton scattering at helium atoms near the threshold
Nature Physics 16, 756 (2020)
- [5] A. Khan, T. Jahnke, S. Zeller, F. Trinter, M. Schöffler, L. Ph. H. Schmidt, R. Dörner, and M. Kunitski
Visualizing the Geometry of Hydrogen Dimers
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- [6] S. Grundmann, M. Kircher, I. Vela-Perez, G. Nalin, D. Trabert, N. Anders, N. Melzer, J. Rist, A. Pier, N. Strenger, J. Siebert, Ph.V. Demekhin, L.Ph.H. Schmidt, F. Trinter, M.S. Schöffler, T. Jahnke, and R. Dörner
Observation of photoion backward emission in photoionization of He and N₂
Phys.Rev.Lett. 124, 233201 (2020)
- [7] Si-Ge Chen, Wei-Chao Jiang, S. Grundmann, F. Trinter, M. S. Schöffler, T. Jahnke, R. Dörner, Hao Liang, Mu-Xue Wang, Liang-You Peng, Qihuang Gong
Photon Momentum Transfer in Single-Photon Double Ionization of Helium in photoionization of N₂ at $h\nu = 40$ keV
Phys.Rev.Lett., 124, 043201 (2020)

- [8] G. Kastirke, M. S. Schöffler, M. Weller, J. Rist, R. Boll, N. Anders, Th. M. Baumann, S. Eckart, B. Erk, A. De Fanis, K. Fehre, A. Gatton, S. Grundmann, P. Grychtol, A. Hartung, M. Hofmann, M. Ilchen, Ch. Janke, M. Kircher, M. Kunitski, X. Li, T. Mazza, N. Melzer, J. Montano, V. Music, G. Nalin, Y. Ovcharenko, A. Pier, N. Rennhack, D. E. Rivas, R. Dörner, D. Rolles, A. Rudenko, Ph. Schmidt, J. Siebert, N. Strenger, D. Trabert, I. Vela-Perez, R. Wagner, Th. Weber, J. B. Williams, P. Ziolkowski, L. Ph. H. Schmidt, A. Czasch, K. Ueda, F. Trinter, M. Meyer, Ph. V. Demekhin, and T. Jahnke
Double Core-Hole Generation in O_2 Molecules Using an X-Ray Free-Electron Laser: Molecular-Frame Photoelectron Angular Distributions
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- [9] G. Kastirke, M.S. Schöffler, M. Weller, J. Rist, R. Boll, N. Anders,1 T.M. Baumann, S. Eckart, B. Erk,3 A. De Fanis, K. Fehre, A. Gatton, S. Grundmann, P. Grychtol, A. Hartung, M. Hofmann,1 M. Ilchen, C. Janke,1 M. Kircher, M. Kunitski, X. Li, T. Mazza, N. Melzer, J. Montano, V. Music, G. Nalin, Y. Ovcharenko, A. Pier, N. Rennhack, D.E. Rivas, R. Dörner, D. Rolles, A. Rudenko, P. Schmidt, J. Siebert, N. Strenger, D. Trabert, I. Vela-Perez, R. Wagner, T. Weber, J.B. Williams, P. Ziolkowski, L.Ph.H. Schmidt, A. Czasch, F.Trinter, M. Meyer, K. Ueda, Ph.V. Demekhin, and T. Jahnke
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Interatomic and Intermolecular Coulombic Decay
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- [11] L. Kaiser, K. Fehre, N.M. Novikovskiy, J. Stindl, D. Tsitsonis, G. Gopakumar, I. Unger, J. Söderström, O. Björneholm, M.S. Schöffler, T. Jahnke, R. Dörner, F. Trinter, and P.V. Demekhin
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- [12] S. Eckart, D. Trabert, K. Fehre, A. Geyer, J. Rist, K. Lin, F. Trinter, L. Ph. H. Schmidt, M. S. Schöffler, T. Jahnke, M. Kunitski, R. Dörner
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- [13] K.A. Larsen, T.N. Rescigno, T. Severt, Z.L. Streeter, W. Iskandar, S. Heck, A. Gatton, E.G. Champenois, R. Strom, B. Jochim, D. Reedy, D. Call, R. Moshhammer, R. Dörner, A.L. Landers, J.B. Williams, C.W. McCurdy, R. R. Lucchese, I. Ben-Itzhak, D.S. Slaughter and T. Weber
Photoelectron and fragmentation dynamics of the $H^{++}H^+$ dissociative channel in NH_3 following direct single-photon double ionization
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- [14] K. Larsen, T.N. Rescigno, Z. Streeter, W. Iskandar, S. Heck, A. Gatton, E. Champenois, T. Severt, R. Strom, B. Jochim, D. Reedy, D. Call, R. Moshhammer, R. Dörner, A. Landers, J.B. Williams, W.C. McCurdy, R. Lucchese, I. Ben-Itzhak, D. Slaughter, and T. Weber
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Chiral photoelectron angular distributions from ionization of achiral atomic and molecular species
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- [17] H. Kang, A. S. Maxwell, D. Trabert, X. Lai, S. Eckart, M. Kunitski, M. Schöffler, T. Jahnke, X. Bian, R. Dörner, C. Figueira de Morisson Faria
Holographic detection of parity in atomic and molecular orbitals
Phys.Rev.A, 102, 013109 (2020)
- [18] A. Khan, D. Trabert, S. Eckart, M. Kunitski, T. Jahnke, R. Dörner
Orientation-dependent dissociative ionization of H_2 in strong elliptic laser fields: Modification of the release time through molecular orientation
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- [19] A. Mhamdi, J. Rist, T. Havermeier, R. Dörner, T. Jahnke, P. V. Demekhin
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Nature Physics 15, 1222 (2019)
- [22] M. Kunitski, N. Eicke, P. Huber, J. Köhler, S. Zeller, J. Voigtsberger, N. Schlott, K. Henrichs, H. Sann, F. Trinter, L. Ph.H. Schmidt, A. Kalinin, M. S. Schöffler, T. Jahnke, M. Lein, and R. Dörner
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Patents

- [401] Bestimmung der Carrier-Envelope Phase (CEP) eines ultrakurzen Laserpulses
German Patent DE102004054408B4 published 31.05.2007
- [402] Verfahren und hochauflösendes Impulsmikroskop zum Nachweis geladener Teilchen
Method for observing dynamic processes in atomic or molecular systems
German Patent DE000019740807A1 published 25.03.1999
- [403] Verfahren und Vorrichtung zur Herstellung eines Energiespeicherbausteins
Energy storage component production
German Patent DE000019705520A1 published 20.08.1998
- [404] Verfahren zum Darstellen dynamischer Prozesse zwischen einem Target und einem feinen
Projektilstrahl in atomaren und/oder molekularen Dimensionen sowie eine dazu verwendete
Mikroskopeinrichtung
Dynamic process representation method for atomic and/or molecular system
German Patent DE000019604472C1 published 02.10.1997