

List of publications

Urs Staub

10.06.2025 5 most important publications red titles, No's. 109, 146, 198, 201, 271

2025

287. **CIRCULAR DICHROISM IN RESONANT INELASTIC X-RAY SCATTERING FROM BIREFRINGENCE IN CuO**

Abhishek Nag, Gérard Sylvester Perren, Hiroki Ueda, A. T. Boothroyd, D. Prabhakaran, M. García-Fernández, S. Agrestini, Ke-Jin Zhou, and *Urs Staub*, Phys. Rev. Research **7**, L022047 (2025). <https://doi.org/10.1103/PhysRevResearch.7.L022047>

287. **ANTIFERRODISTORTIVE AND FERROELECTRIC PHASE TRANSITIONS IN FREESTANDING FILMS OF SrTiO₃**

L. Leroy, S.-W. Huang, C.-C. Chiu, S.-Z. Ho, J. Dössegger, C. Piamonteze, Y.-C. Chen, E. Abreu, A. Bombardi, J.-C. Yang, and *U. Staub*, Nano Letters **25** 7651 (2025). <https://doi.org/10.1021/acs.nanolett.4c05664>

286. **INTRINSIC THREE-DIMENSIONAL TOPOLOGY IN SrNbO₃ FILMS**

A. Chikina, V. Rosendal, H. Li, E. Skoropata, E. B. Guedes, M. Caputo, N. C. Plumb, M. Shi, D. H. Petersen, M. Brandbyge, W. H. Brito, E. Pomjakushina, V. Scagnoli, J. Lyu, M. Medarde, *U. Staub*, S.-W. Huang, E. A. Müller Gubler, F. Baumberger, N. Pryds, and M. Radovic, Phys. Rev. B **111**, 155146 (2025), <https://doi.org/10.1103/PhysRevB.111.155146>

285. **WEAVING THE CORRELATED MAGNETIC AND ELECTRICAL PHENOMENA IN EPITAXIAL MANGANITE LATERAL HOMOSTRUCTURES**

Yao-Wen Chang, Yu-Chen Liu, Shih-Wen Huang, Jia-Yuan Sun, Sheng-Zhu Ho, Wen-Yen Tzeng, Chun-Chien Chiu, Tim A. Butcher, Cinthia Piamonteze, *Urs Staub*, Yi-Chun Chen, Chun-Fu Chang, Chang-Yang Kuo, Ying-Hao Chu, Armin Kleibert, Chih-Wei Luo, and Jan-Chi Yang, Small, **21**, 2411424 (2025), <https://doi.org/10.1002/sml.202411424>

284. **NONCHIRAL 1T-TiSe₂ CREATES CIRCULAR DICHROISM IN RESONANT X-RAY DIFFRACTION VIA MULTIPOLE SCATTERING INTERFERENCE**

Hiroki Ueda, Yves Joly, and *Urs Staub*, Phys. Rev. B **111**, L081114 (2025), <https://doi.org/10.1103/PhysRevB.111.L081114>

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283. **CONTROLLING 4f ANTIFERROMAGNETIC DYNAMICS VIA ITINERANT ELECTRONIC SUSCEPTIBILITY**

Sang-Eun Lee, Yoav William Windsor, Daniela Zahn, Alexej Kraiker, Kurt Kummer, Kristin Kliemt, Cornelius Krellner, Christian Schüßler-Langeheine, Niko Pontius, *Urs Staub*, Denis V. Vyalikh, Arthur Ernst, and Laurenz Rettig, Phys. Rev. Research. **15**, 7183 (2024). <https://doi.org/10.1103/PhysRevResearch.6.043019>

282. **COHERENT CONTROL OF RARE EARTH 4f SHELL WAVEFUNCTIONS IN THE QUANTUM SPIN LIQUID Tb₂Ti₂O₇**

R. Mankowsky, M. Müller, M. Sander, S. Zerdane, X. Liu, D. Babich, H. Ueda, Y. Deng, R. Winkler, B. Strudwick, M. Savoini, F. Giorgianni, S. L. Johnson, E. Pomjakushina, P. Beaud, T. Fennell, H. T. Lemke, and *U. Staub*, Nature Commun. **15**, 7183 (2024). <https://doi.org/10.1038/s41467-024-51339-0>

281. **MAGNETOELECTRIC EFFECT IN MULTIFERROIC NICKELATE PEROVSKITE YNiO₃**
Nazaret Ortiz Hernández, Elizabeth Skoropata, Hiroki Ueda, Max Burian, José Antonio Alonso, and *Urs Staub*, Commun. Mater. **5**, 154 (2024). <https://doi.org/10.1038/s43246-024-00604-2>
280. **PHONON DISPERSION OF QUANTUM PARAELECTRIC SrTiO₃ IN ELECTRIC FIELDS**
Henrik Jacobsen, Marek Barthkowiak, Tobias Weber, Uwe Stuhr, Bertrand Roessli, Christof Niedermayer, and *Urs Staub*, Physical Review B **110**, 054302 (2024). DOI: 10.1103/PhysRevB.110.054302
279. **PROTOCOLS FOR X-RAY TRANSIENT GRATING PUMP / OPTICAL PROBE EXPERIMENTS AT X-RAY FREE ELECTRON LASERS**
Danny Fainozzi, Riccardo Cucini, Joan V. Comamala, Frederico Lima, Alessandro Gessini, Alexei A. Maznev, Andrea Cannizzo, Benedikt Rösner, Carles S. Jurado, Christian David, Christopher Milne, Claudio Masciovecchio, David A. Reis, Robin Y. Engel, Ettore Paltanin, Eugenio Ferrari, Fernando Ardana-Lamas, Fernando M. Garcia, Filippo Bencivenga, Gregor Knopp, Jakub Szlachetko, Jeremy R. Rouxel, Jerome Hastings, Keith A. Nelson, Knoll Martin, Ludmila D. Leroy, Luis B. Morcillo, Madsen Anders, Majed Chergui, Mamrybayev Talgat, Mano R. D. Veeraraj, Markus Scholz, Marta Brioschi, Martin Beye, Matias Bargheer, Morillo C. A. Sofia, Mykola Biednov, Nadia Berndt, Nupur N. Khatu, Pamela R. Bowlan, Pietro Carrara, Renato Torre, Riccardo Mincigrucci, Simon Gerber, Stefano Bonetti, Thomas Feuer, *Urs Staub*, Wojciech Bl-achucki, Wojciech M. Gawelda, and Cristian Svetina, Journal of Physics B: Atomic, Molecular and Optical Physics **57** 185403 (2024), DOI 10.1088/1361-6455/ad717f.
278. **2024 ROADMAP ON MAGNETIC MICROSCOPY TECHNIQUES AND THEIR APPLICATIONS IN MATERIALS SCIENCE**
D. V. Christensen, *U. Staub*, T. R. Devidas, B. Kalisky, K. C. Nowack, J.L. Webb, U.L. Andersen, A. Huck, D. A. Broadway K. Wagner, P. Maletinsky, T. van der Sar, C. R. Du, A. Yacoby, D. Collomb, S. Bending, A. Oral, H. J. Hug, A.-O. Mandru, V. Neu, H. W. Schumacher, S. Sievers, H. Saito, A. A. Khajetoorians, N. Hauptmann, S. Baumann, A. Eichler, C. L. Degen, J. McCord, M. Vogel, M. Fiebig, P. Fischer, A. Hierro-Rodriguez, S. Finizio, S. S. Dhesi, C. Donnelly, Felix Büttner, O. Kfir, W. Hu, S. Zayko, S. Eisebitt, B. Pfau, R. Frömter, M. Kläui, F. S. Yasin, B. J. McMorran, S. Seki, X. Yu, A. Lubk, D. Wolf, N. Pryds, D. Makarov, M. Poggio, J. Phys. Materials **7**, 032501 (2024). <https://doi.org/10.1088/2515-7639/ad31b5>
277. **4f ELECTRON TEMPERATURE DRIVEN ULTRAFAST ELECTRON LOCALIZATION**
Kohei Yamagami, Hiroki Ueda, *Urs Staub*, Yujun Zhang, Kohei Yamamoto, Sang Han Park, Soonnam Kwon, Akihiro Mitsuda, Hirofumi Wada, Takayuki Uozumi, Kojiro Mimura, and Hiroki Wadati, Phys. Rev. Research **6**, 023099 (2024). <https://doi.org/10.1103/PhysRevResearch.6.023099>

276. **TRANSIENT GRATING SPECTROSCOPY ON A DyCo₅ THIN FILM WITH FEMTOSECOND EXTREME ULTRAVIOLET PULSES**

Victor Ukleev, Ludmila Leroy, Riccardo Mincigrucci, Dario Deangelis, Danny Fainozzi, Nupur Ninad Khatu, Ettore Paltanin, Laura Foglia, Filippo Bencivenga, Chen Luo, Florian Ruske, Florin Radu, Cristian Svetina, and *Urs Staub*, *Struc. Dyn.* **11**, 025101 (2024).
<https://doi.org/10.1063/4.0000223>

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275. **NON-EQUILIBRIUM DYNAMICS OF SPIN-LATTICE COUPLING**

Hiroki Ueda, Roman Mankowsky, Eugenio Paris, Mathias Sander, Yunpei Deng, Biaolong Liu, Ludmila Leroy, Abhishek Nag, Elizabeth Skoropata, Chennan Wang Victor Ukleev, Gérard Sylvester Perren, Janine Dössegger, Sabina Gurung, Cristian Svetina, Elsa Abreu, Matteo Savoini, Tsuyoshi Kimura, Luc Patthey, Elia Razzoli, Henrik Till Lemke, Steven Lee Johnson, and *Urs Staub*, *Nature Commun.* **14**, 7778 (2023).
<https://doi.org/10.1038/s41467-023-43581-9>

274. **COMBINED THEORETICAL AND EXPERIMENTAL STUDY OF THE MOIRÉ DISLOCATION NETWORK AT THE SrTiO₃-(La, Sr)(Al,Ta)O₃ INTERFACE**

Chiara Ricca, Elizabeth Skoropata, Marta D. Rossell, Rolf Erni, *Urs Staub*, and Ulrich Aschauer, *ACS Applied Materials & Interfaces*, **15**, 57638 (2023).
<https://doi.org/10.1021/acsami.3c10958>

273. **TRANSIENT NON-COLLINEAR MAGNETIC STATE FOR ALL-OPTICAL MAGNETIZATION SWITCHING**

Sergii Parchenko, Antoni Frej, Hiroki Ueda, Robert Carley, Laurent Mercadier, Natalia Gerasimova, Giuseppe Mercurio, Justine Schlappa, Alexander Yaroslavl'tsev, Naman Agarwal, Rafael Gort, Andreas Scherz, Anatoly Zvezdin, Andrzej Stupakiewicz, *Urs Staub*, *Advanced Science* **10**, 2302550 (2023).
<https://doi.org/10.1002/advs.20230255>

272. **4D VISUALIZATION OF A NONTHERMAL COHERENT MAGNON IN THE LASER HEATED LATTICE BY AN X-RAY FREE ELECTRON LASER**

Hoyoung Jang, Hiroki Ueda, Hyeong-Do Kim, Minseok Kim, Kwang Woo Shin, Kee Hoon Kim, Sang-Youn Park, Hee Jun Shin, Pavel Borisov, Matthew J. Rosseinsky, Dogeun Jang, Hyeonggi Choi, Intae Eom, *Urs Staub* and Sae Hwan Chun, *Advanced Materials*, **35**, 2303032 (2023). DOI: 10.1002/adma.202303032

271. **CHIRAL PHONONS IN QUARTZ PROBED BY X RAYS**

Hiroki Ueda, Mirian García-Fernández, Stefano Agrestini, Carl P. Romao, Jeroen van den Brink, Nicola A. Spaldin, Ke-Jin Zhou, and *Urs Staub*, *Nature* **618**, 946 (2023). DOI: 10.1038/s41586-023-06016-5

270. **ANTIFERROMAGNETIC SPIN CANTING AND MAGNETOELECTRIC MULTIPOLES IN h-YMnO₃**

M. Ramakrishnan, Y. Joly, Q. N. Meier, M. Fechner, M. Porer, S. Parchenko, Y. W. Windsor, E. M. Bothschafter, F. Lichtenberg, and *Urs Staub*, *Phys. Rev. Research* **5**, 013203 (2023). DOI: 10.1103/PhysRevResearch.5.013203

269. **INVESTIGATING THE EFFECTS OF INTENSE X-RAY FREE-ELECTRON LASER TRANSIENT GRATING ON THE MAGNETIC DOMAIN STRUCTURE OF Tm:YIG**
Victor Ukleev, Max Burian, Sebastian Gliga, C.A.F. Vaz, Benedikt Rösner, Danny Fainozzi, Gediminas Seniutinas, Adam Kubec, Roman Mankowsky, Henrik T. Lemke, Ethan R. Rosenberg, Caroline A. Ross, Elisabeth Müller, Christian David, Cristian Svetina, and *Urs Staub*, J. Appl. Phys. **113**, 123902 (2023). DOI: 10.1063/5.0119241

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268. **PHOTOINDUCED STRUCTURAL DYNAMICS OF MULTIFERROIC TbMnO₃**
Elsa Abreu, Matteo Savoini, Larissa Boie, Paul Beaud, Vincent Esposito, Martin Kubli, Martin J. Neugebauer, Michael Porer, *Urs Staub*, Bulat Burganov, Chris Dornes, Angel Rodriguez-Fernandez, Lucas Huber, Gabriel Lantz, José R. L. Mardegan, Sergii Parchenko, Jochen Rittmann, Cris Svetina, Gerhard Ingold, and Steven L. Johnson, Phys. Rev. B **106**, 214312 (2022). DOI: 10.1103/PhysRevB.106.214312
267. **UNUSUAL FERRIMAGNETISM IN CaFe₂O₄**
Hiroki Ueda, Elizabeth Skoropata, Cinthia Piamonteze, Nazaret Ortiz Hernandez, Max Burian, Yoshikazu Tanaka, Klauser Christine, Silvia Damerio, Beatriz Noheda and, *Urs Staub*, Phys. Rev. Materials **6**, 124405 (2022). DOI: 10.1103/PhysRevMaterials.6.124405
266. **SLOPE ERROR CORRECTION ON X-RAY REFLECTION GRATINGS BY VARIATION OF THE LOCAL LINE DENSITY**
Adam Kubec, Nazanin Samadi, Manuel Langer, Florian Döring, Benedikt Rösner, Vitaliy A. Guzenko, Nazaret Ortiz Hernandez, *Urs Staub*, Rolf Follath, Jörg Raabe, and Christian David, Optics Express **30**, 46248 (2022). DOI: 10.1364/OE.471438
265. **MELTING OF MAGNETIC ORDER IN NaOsO₃ BY FEMTOSECOND LASER PULSES**
Flavio Giorgianni, Max Burian, Namrata Gurung, Martin Kubli, Vincent Esposito, *Urs Staub*, Paul Beaud, Steven L. Johnson, Yoav William Windsor, Laurenz Rettig, Dmitry Ozerov, Henrik Lemke, Susmita Saha, Federico Pressacco, Stephen Patrick Collins, Tadashi Togashi, Tetsuo Katayama, Shigeki Owada, Makina Yabashi, Kazunari Yamaura, Yoshikazu Tanaka, and V. Scagnoli, Phys. Rev. **B105**, 155147 (2022). DOI: 10.1103/PhysRevB.105.155147
264. **CONICAL SPIN ORDER WITH CHIRAL QUADRUPOLE HELIX IN CsCuCl₃**
Hiroki Ueda, Elizabeth Skoropata, Max Burian, Victor Ukleev, Gérard Sylvester Perren, Ludmila Leroy, Julien Zaccaro, and *Urs Staub*, Phys. Rev. **B105**, 144408 (2022). DOI: 10.1103/PhysRevB.105.144408
263. **OPTICAL EXCITATION OF ELECTROMAGNONS IN HEXAFERRITE**
Hiroki Ueda, Hoyoung Jang, Sae Hwan Chun, Hyeong-Do Kim, Minseok Kim, Sang-Youn Park, Simone Finizio, Nazaret Ortiz Hernandez, Vladimir Ovuka, Matteo Savoini, Tsuyoshi Kimura, Yoshikazu Tanaka, Andrin Doll, and *Urs Staub*, Phys. Rev. Research **4**, 023007 (2022). DOI: 10.1103/PhysRevResearch.4.023007
262. **ULTRAFAST PROBE OF MAGNETIZATION DYNAMICS IN MULTIFERROIC CoCr₂O₄ AND Co_{0.975}Ge_{0.025}Cr₂O₄**
S. Parchenko, N. Ortiz Hernández, M. Savoini, M. Porer, M. Decker, B. Burganov, E. M. Bothschafter, C. Dornes, Y. W. Windsor, M. Ramakrishnan, L. Rettig, M. Buzzi, D. Schick,

K. Holldack, N. Pontius, C. Schüssler-Langeheine, M. Radovic , J. A. Heuver, B. Noheda, S. L. Johnson, and **U. Staub**, Phys. Rev. B **105**, 064432 (2022).
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261. **EXCHANGE SCALING OF ULTRAFAST ANGULAR MOMENTUMTRANSFER IN 4f ANTIFERROMAGNETS**

Y. W. Windsor, S.-E. Lee, D. Zahn, V. Borisov, D. Thonig, K. Kliemt, A. Ernst, C. Schüssler-Langeheine, N. Pontius, **U. Staub**, C. Krellner, D. V. Vyalikh, O. Eriksson and L. Rettig, Nature Materials **21**, 515 (2022), <https://doi.org/10.1038/s41563-022-01206-4>

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260. **ANTI-SYMMETRIC COMPTON SCATTERING IN LiNiPO₄: TOWARDS A DIRECT PROBE OF THE MAGNETO-ELECTRIC MULTIPOLE MOMENT**

Sayantika Bhowal, Daniel O'Neill, Michael Fechner, Nicola A. Spaldin, **Urs Staub**, Jon Duffy, and Stephen P. Collins, Open Research Europe, (2021)
<https://doi.org/10.12688/openreseurope.13863.1>

259. **ULTRAFAST ELECTRON LOCALIZATION IN THE EuNi₂(Si_{0.21}Ge_{0.79})₂ CORRELATED METAL**

Jose R. L. Mardegan, Serhane Zerdane, Giulia Mancini, Vincent Esposito, Jérémy R. Rouxel, Roman Mankowsky, Cristian Svetina, Namrata Gurung, Sergii Parchenko, Michael Porer, Bulat Burganov, Yunpei Deng, Paul Beaud, Gerhard Ingold, Bill Pedrini, Christopher Arrell, Christian Erny, Andreas Dax, Henrik Lemke, Martin Decker, Nazaret Ortiz, Chris Milne, Grigory Smolentsev, Laura Maurel, Steven L. Johnson, Akihiro Mitsuda, Hirofumi Wada, Yuichi Yokoyama, Hiroki Wadati, and **Urs Staub**, Phys. Rev. Research **3**, 033211 (2021). <https://doi.org/10.1103/PhysRevResearch.3.033211>

258. **MAGNETIC ORDER OF TETRAGONAL CuO ULTRATHIN FILMS**

N. Ortiz Hernández, Z. Salman, T. Prokscha, A. Suter, J. R. L. Mardegan, S. Moser, A. Zakharova, C. Piamonteze, and **U. Staub**, Phys. Rev. B **103**, 224429 (2021).
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257. **NONEQUILIBRIUM CHARGE-DENSITY-WAVE ORDER BEYOND THE THERMAL LIMIT**

J. Maklar, Y. W. Windsor, C. W. Nicholson , M. Puppini , P. Walmsley, V. Esposito, M. Porer, J. Rittmann, D. Leuenberger, M. Kubli, M. Savoini, E. Abreu, S. L. Johnson, P. Beaud, G. Ingold, **U. Staub**, I. R. Fisher, R. Ernstorfer, M. Wolf, and L. Rettig , Nature Commun. **12**, **2499** (2021). <https://doi.org/10.1038/s41467-021-22778-w>

256. **HARD X-RAY TRANSIENT GRATING SPECTROSCOPY ON BISMUTH GERMANATE**

Jérémy R. Rouxel, Danny Fainozzi, Roman Mankowsky, Benedikt Rösner, Gediminas Seniutinas, Riccardo Mincigrucci, Sara Catalini, Laura Foglia, Riccardo Cucini, Florian Döring, Adam Kubec, Frieder Koch, Filippo Bencivenga, Andre Al Haddad, Alessandro Gessini, Alexei A. Maznev, Claudio Cirelli, Simon Gerber, Bill Pedrini, Giulia F. Mancini, Elia Razzoli, Max Burian, Hiroki Ueda, Georgios Pamfilidis, Eugenio Ferrari, Yunpei Deng, Aldo Mozzanica, Philip Johnson, Dmitry Ozerov, Maria Grazia Izzo, Cettina Bottari, Christopher Arrell, Edwin James Divall, Serhane Zerdane, Mathias Sander, Gregor Knopp,

Paul Beaud, Henrik Till Lemke, Chris J. Milne, Christian David, Renato Torre, Majed Chergui, Keith A. Nelson, Claudio Masciovecchio, *Urs Staub*, Luc Patthey and Cristian Svetina, Nature Photonics **15**, 499 (2021). <https://doi.org/10.1038/s41566-021-00797-9>

255. **CORRELATION BETWEEN ELECTRONIC AND STRUCTURAL ORDERS IN 1T-TiSe₂**
Hiroki Ueda, Michael Porer, José R. L. Mardegan, Sergii Parchenko, Namrata Gurung, Federica Fabrizi, Mahesh Ramakrishnan, Larissa Boie, Martin Josef Neugebauer, Bulat Burganov, Max Burian, Steven Lee Johnson, Kai Rossnagel, and *Urs Staub*, Phys. Rev. Research **3**, L022003 (2021).
 254. **BURIED MOIRÉ SUPERCELLS THROUGH SrTiO₃ NANOLAYER RELAXATION**
Max Burian, Bill Francesco Pedrini, Nazaret Ortiz Hernandez, Hiroki Ueda, C. A. F. Vaz, Marco Caputo, Milan Radovic, and *Urs Staub*, Phys. Rev. Research **3**, 013225 (2021). <https://doi.org/10.1103/PhysRevResearch.3.L022003>
 253. **MAGNETIC FIELD DEPENDENT CYCLOIDAL ROTATION IN PRISTINE AND GE DOPED CoCr₂O₄**
N. Ortiz Hernandez, S. Parchenko, J. R. L. Mardegan, M. Porer, E. Schierle, E. Weschke, M. Ramakrishnan, M. Radovic, J. A. Heuver, B. Noheda, N. Daffe, J. Dreiser, H. Ueda and *U. Staub*, Phys. Rev. B **103**, 085123 (2021).
 252. **STRUCTURAL INVOLVEMENT IN THE MELTING OF THE CHARGE DENSITY WAVE IN 1T-TiSe₂**
Max Burian, Michael Porer, Jose R. L. Mardegan, Vincent Esposito, Sergii Parchenko, Bulat Burganov, Namrata Gurung, Mahesh Ramakrishnan, Valerio Scagnoli, Hiroki Ueda, Sonia Francoual, Federica Fabrizi, Yoshikazu Tanaka, Tadashi Togashi, Yuya Kubota, Makina Yabashi, Kai Rossnagel, Steven L. Johnson, and *Urs Staub*, Phys. Rev. Research **3**, 013128 (2021).
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251. **MULTIPLE MAGNETIC ORDERING PHENOMENA IN MULTIFERROIC o-HoMnO₃**
Y. W. Windsor, M. Ramakrishnan, L. Rettig, A. Alberca, T. Lippert, C. W. Schneider and *Urs Staub*, Phys. Rev. B **102**, 214423 (2020).
 250. **SOFT X-RAY ABSORPTION OF THIN FLMS DETECTED USING SUBSTRATE LUMINESCENCE: A PERFORMANCE ANALYSIS**
Cinthia Piamonteze, Yoav William Windsor, Sridhar R. V. Avula, Eugenie Kirk and *Urs Staub*, J. Synch. Rad. **27**, 1289 (2020). <https://doi.org/10.1107/S1600577520009972>
 249. **EVOLUTION OF FELD-INDUCED METASTABLE PHASES IN THE SHASTRY-SUTHERLAND LATTICE MAGNET TmB₄**
D. Lancon, V. Scagnoli, *U. Staub*, O. A. Petrenko, M. Ciomaga Hatnean, E. Canevet, R. Sibille, S. Francoual, J. R. L. Mardegan, K. Beauvois, G. Balakrishnan, L. J. Heyderman, Ch. Ruegg, and T. Fennell, Phys. Rev. B **102**, 060407(R) (2020). <https://doi.org/10.1103/PhysRevB.102.060407>

248. **DETERMINISTIC CONTROL OF AN ANTIFERROMAGNETIC SPIN ARRANGEMENT USING ULTRAFAST OPTICAL EXCITATION**

Yoav Windsor, Arthur Ernst, Kurt Kummer, Kristin Kliemt, Christian Schuessler-Langeheine, Niko Pontius, *Urs Staub*, Evgueni Chulkov, Cornelius Krellner, Denis Vyalikh, and Laurenz Rettig, *Communications Phys.* **3**, 139 (2020). <https://doi.org/10.1038/s42005-020-00407-0>

247. **ORBITAL DYNAMICS DURING AN ULTRAFAST INSULATOR TO METAL TRANSITION**

Sergii Parchenko, Eugenio Paris, Daniel McNally Elsa Abreu, Markus Dantz, Elisabeth M. Bothschafter, Alexander H. Reid, William F. Schlotter, Ming-Fu Lin Scott F. Wandel, Giacomo, Coslovich, Sioan Zohar Georgi L. Dakovski, J. J. Turner, S. Moeller Yi Tseng, Milan Radovic, Conny Saathe Marcus Agaaker, Joseph E. Nordgren, Stephen L. Johnson, Thorsten Schmitt and *Urs Staub*, *Phys. Rev. Research* **2**, 023110 (2020). <https://doi.org/10.1103/PhysRevResearch.2.023110>

246. **CORRELATIONS BETWEEN ELECTRONIC ORDER AND STRUCTURAL DISTORTIONS AND THEIR ULTRAFAST DYNAMICS IN THE SINGLE-LAYER MANGANITE $\text{Pr}_{0.5}\text{Ca}_{1.5}\text{MnO}_4$**

M. Porer, L. Rettig, , E. M. Bothschafter, V. Esposito, , R. B. Versteeg, P. H. M. van Loosdrecht, M. Savoini, J. Rittmann, M. Kubli, G. Lantz, O. J. Schumann, , A. A. Nugroho, M. Braden, G. Ingold, S. L. Johnson, P. Beaud, and *U. Staub*, *Phys. Rev. B* **101**, 075119 (2020). <https://doi.org/10.1103/PhysRevB.101.075119>

245. **COHERENT EPITAXIAL SEMICONDUCTOR - FERROMAGNETIC INSULATOR InAs/EuS INTERFACES: BAND ALIGNMENT AND MAGNETIC STRUCTURE**

Yu Liu, Alessandra Luchini, Sara Martí-Sánchez, Christian Koch, Sergej Schuwalow, Sabbir A. Khan, Tomaš Stankevič, Sonia Francoual, Jose R. L. Mardegan, Jonas A. Krieger, Vladimir N. Strocov, Jochen Stahn, Carlos A. F. Vaz, Mahesh Ramakrishnan, *Urs Staub*, Kim Lefmann, Gabriel Aeppli, Jordi Arbiol, Peter Krogstrup, *ACS Appl. Mater. Interfaces* **12**, 8780 (2020). <https://doi.org/10.1021/acsami.9b15034>

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244. **FIELD-INDUCED DOUBLE SPIN SPIRAL IN A FRUSTRATED CHIRAL MAGNET**

Mahesh Ramakrishnan, Evan Constable, Andres Cano, Maxim Mostovoy, Jonathan S. White, Namrata Gurung, Enrico Schierle, Sophie de Brion, Claire V. Colin, Frederic Gay, Pascal Lejay, Eric Ressouche, Eugen Weschke, Valerio Scagnoli, Rafik Ballou, Virginie Simonet and *Urs Staub*, *NPJ Quantum Materials* **4**, 60 (2019).

243. **ULTRAFAST TRANSIENT INCREASE OF OXYGEN OCTAHEDRAL ROTATIONS IN A PEROVSKITE**

M. Porer, M. Fechner, M. Kubli, M. J. Neugebauer, S. Parchenko, V. Esposito, A. Narayan, N. A. Spaldin, R. Huber, M. Radovic, E. M. Bothschafter, J. M. Glowina, T. Sato, S. Song, S. L. Johnson, and *U. Staub*, *Phys. Rev. Research* **1**, 2012005(R) (2019).

242. **CONTINUOUS MAGNETIC PHASE TRANSITION IN ARTIFICIAL SQUARE ICE**

Oles Sendetskyi, Valerio Scagnoli, Naëmi Leo, Luca Anghinolfi, Aurora Alberca, Jan Lüning, *Urs Staub*, Peter Michael Derlet, and Laura Jane Heyderman, Phys. Rev. B **99**, 214430 (2019).

241. **MAGNETIC AND ELECTRONIC PROPERTIES AT THE γ -Al₂O₃/SrTiO₃ INTERFACE**
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