Summary

- **>190 publications,** thereof
  45 Nature/Science, **101 Physical Review Letters/Nature Physics/Physical Review X**

- **<u>Citation Metrics:</u>**
  Google Scholar citations: **(total)** > **74.000, h-index: 112**
  Publons (formerly ISI WoS): **(total) > 45.000, h-index: 93**

List of Publications

198 G. Pasqualetti, O. Bettermann, N. Darkwah Oppong, E. Ibarra-García-Padilla, S. Dasgupta, R. Scalettar, K. Hazzard, I. Bloch, S. Fölling
Equation of State and Thermometry of the 2D SU(N) Fermi-Hubbard Model
Physical Review Letters **132**, 083401 (2024)

197 X. Chen, S. Biswas, S. Eppelt, A. Schindewolf, F. Deng, T. Shi, S. Yi, T. A. Hilker, I. Bloch, X. Luo
Ultracold field-linked tetratomic molecules
Nature **626**, 287, pp. 283 (2024)

196 O. Bettermann, N. Darkwah Oppong, G. Pasqualetti, L. Riegger, I. Bloch, S. Fölling
Clock-line photoassociation of strongly bound dimers in a magic-wavelength lattice
Physical Review A **108**, L041302 (2023)

195 H. Schlömer, T. A. Hilker, I. Bloch, U. Schollwöck, F. Grusdt, A. Bohrdt
Quantifying hole-motion-induced frustration in doped antiferromagnets by Hamiltonian reconstruction
Communications Materials **4**, 64 (2023)

194 E. Wybo, A. Bastianello, M. Aidelsburger, I. Bloch, M. Knap
Preparing and Analyzing Solitons in the Sine-Gordon Model with Quantum Gas Microscopes. PRX Quantum **4**, 030308 (2023)

193 A. Impertro, J. F. Wienand, S. Haefele, H. von Raven, S. Hubele, T. M. Klostermann, C. R. Cabrera, I. Bloch, M. Aidelsburger
An unsupervised deep learning algorithm for single-site reconstruction in quantum gas microscopes
Communications Physics **6,** 166 (2023)

192 D. Wei, D. Adler, K. Srakaew, S. Agrawal, P. Weckesser, I. Bloch, J. Zeiher
Observation of Brane Parity Order in Programmable Optical Lattices
Physical Review X **13**, 021042 (2023)

191 I. Bloch
Editorial: Künstliche Quantenwelten im Labor
Phys. Unserer Zeit **5**, 54: 211-211 (2023)

190 M. Duda, X. Chen, R. Bause, A. Schindewolf, I. Bloch, X. Luo
Long-lived fermionic Feshbach molecules with tunable p-wave interactions
Physical Review A **107**, 053322 (2023)

189 J. Trautmann, D. Yankelev, V. Klüsener, A.J. Park, I. Bloch, S. Blatt
1S0−3P2 magnetic quadrupole transition in neutral strontium
Physical Review Research **5**, 013219 (2023)

188 K. Srakaew, P. Weckesser, S. Hollerith, D. Wei, D. Adler, I. Bloch, J. Zeiher
A subwavelength atomic array switched by a single Rydberg atom
Nature Physics **19**, 714-719 (2023)

187 M. Duda, X. Chen, A. Schindewolf, R. Bause, J.v. Milczewski, R. Schmidt, I. Bloch, X. Luo
Transition from a polaronic condensate to a degenerate Fermi gas of heteronuclear molecules
Nature Physics **19**, 720–725 (2023)

186 X. Chen, A. Schindewolf, S. Eppelt, R. Bause, M. Duda, S. Biswas, T. Karman, T.A. Hilker, I. Bloch, X. Luo
Field-linked resonances of polar molecules
Nature **614**, 59 - 63 (2023)

185 S. Hirthe, T. Chalopin, D. Bourgund, P. Bojovic, A. Bohrdt, E. Demler, F. Grusdt, I. Bloch, T.A. Hilker
Magnetically mediated hole pairing in fermionic ladders of ultracold atoms
Nature **613**, 463 - 467 (2023)

184 R. Bause, A. Christianen, A. Schindewolf, I. Bloch, X. Luo
Ultracold Sticky Collisions: Theoretical and Experimental Status
The Journal of Physical Chemistry A **127**, 729-741 (2023)

183 T. Kohlert, S. Scherg, P. Sala, F. Pollmann, B.H. Madhusudhana, I. Bloch, M. Aidelsburger
Exploring the Regime of Fragmentation in Strongly Tilted Fermi-Hubbard Chains
Physical Review Letters **130**, 010201 (2023)

182 E. Deist, Y.-H.Lu, J. Ho, M. K Pasha, J. Zeiher, Z. Yan, D.M. Stamper-Kurn
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181 I. Bloch, M. Greiner
The superfluid-to-Mott insulator transition and the birth of experimental quantum simulation
Nature Reviews Physics **4,** 739–740 (2022)

180 S. Flannigan, N. Pearson, G. Low, A. Buyskikh, I. Bloch, P. Zoller, M. Troyer, A. Daley
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Quantum Science and Technology **7** (4), 045025 (2022)

179 N. Darkwah Oppong, G. Pasqualetti, O. Bettermann, P. Zechmann, M. Knap, I. Bloch, S. Fölling
Probing transport and slow relaxation in the mass-imbalanced Fermi-Hubbard model.
Physical Review X **12**, 031026 (2022)

178 A. J. Daley, I. Bloch, C. Kokail, S. Flannigan, N. Pearson, M. Troyer, P. Zoller
Practical quantum advantage in quantum simulation
Nature **607**, 667–676 (2022)

177 A. J. Park, J. Trautmann, N. Šantić, V. Klüsener, A. Heinz, I. Bloch, S. Blatt
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175 D. Wei, A. Rubio Abadal, B. Ye, F. Machado, J. Kemp, K. Srakaew, S. Hollerith, J, Rui, S. Gopalakrishnan, N. Y. Yao, I. Bloch, J. Zeiher
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Physical Review A **105** (4), 043319 (2022)

172 S. Hollerith, K. Srakaew, D.Wei, A. Rubio Abadal, D. Adler, P. Weckesser, A. Kruckenhauser, V. Walther, R. van Bijnen, J. Rui, C. Gross, I. Bloch, J. Zeiher
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Physical Review Letters **128** (11), 113602 (2022)

171 A. Bohrdt; L. Homeier, I. Bloch, E. A. Demler, F. Grusdt
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168 R. Bause, A. Kamijo, X. Chen, M. Duda, A. Schindewolf, I. Bloch, X. Luo
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Physical Review A **104** (4), 043321 (2021)

167 J. M.S. Koepsell; D. Bourgund, P. Sompet, S. Hirthe, A. Bohrdt, Y. Wang, F. Grusdt, E. A. Demler, G. Salomon, C. Groß, et al.
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Science **374** (6563), pp. 82 - 86 (2021

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Nature Communications **12** (1), 4490 (2021)

165 R. Bause, A. Schindewolf, R. Tao, M. Duda, X. Chen, G. Quemener, T. Karman, A. Christianen, I. Bloch, X. Luo
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159 K. Wintersperger, C. Braun, F. Nur Ünal, A. Eckardt, M. Di Liberti, N. Goldman, I. Bloch, M. Aidelsburger
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Physical Review Letters **125**, 023201 (2020)

157 A. Heinz, A.J. Park, N. Santic, J. Trautmann, S.G. Porsev, M.S. Safronova, I. Bloch, S. Blatt
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156 K. Wintersperger, M. Bukov, J. Näger, S. Lellouch, E. A. Demler, U. Schneider, I. Bloch, N. Goldman, M. Aidelsburger
Parametric Instabilities of Interacting Bosons in Periodically Driven 1D Optical Lattices
Physical Review X **10** (1), 011030 (2020)

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152 C. Schweizer, F. Grusdt, M. Berngruber, L. Barbiero, E. Demler, Nathan Goldman, I. Bloch, M. Aidelsburger
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