

LIST OF PUBLICATIONS

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- [1] T. J. Mehrling, C. Benedetti, C. B. Schroeder, E. Esarey, and W. P. Leemans. *Suppression of Beam Hosing in Plasma Accelerators with Ion Motion*. **Phys. Rev. Lett.**, 121:264802, Dec 2018. URL <https://link.aps.org/doi/10.1103/PhysRevLett.121.264802>.
- [2] G. Loisch, G. Asova, P. Boonpornprasert, R. Brinkmann, Y. Chen, J. Engel, J. Good, M. Gross, F. Grüner, H. Huck, D. Kalantaryan, M. Krasilnikov, O. Lishilin, A. M. de la Ossa, T. J. Mehrling, D. Melkumyan, A. Oppelt, J. Osterhoff, H. Qian, Y. Renier, F. Stephan, C. Tenholt, V. Wohlfarth, and Q. Zhao. *Observation of High Transformer Ratio Plasma Wakefield Acceleration*. **Phys. Rev. Lett.**, 121:064801, Aug 2018. URL <https://link.aps.org/doi/10.1103/PhysRevLett.121.064801>.
- [3] A. Martinez de la Ossa, T. J. Mehrling, and J. Osterhoff. *Intrinsic Stabilization of the Drive Beam in Plasma-Wakefield Accelerators*. **Phys. Rev. Lett.**, 121:064803, Aug 2018. URL <https://link.aps.org/doi/10.1103/PhysRevLett.121.064803>.
- [4] M. Gross, J. Engel, J. Good, H. Huck, I. Isaev, G. Koss, M. Krasilnikov, O. Lishilin, G. Loisch, Y. Renier, T. Rublack, F. Stephan, R. Brinkmann, A. Martinez de la Ossa, J. Osterhoff, D. Malyutin, D. Richter, T. Mehrling, M. Khojoyan, C. B. Schroeder, and F. Grüner. *Observation of the Self-Modulation Instability via Time-Resolved Measurements*. **Phys. Rev. Lett.**, 120:144802, Apr 2018. URL <https://link.aps.org/doi/10.1103/PhysRevLett.120.144802>.
- [5] T. J. Mehrling, C. Benedetti, C. B. Schroeder, A. M. de la Ossa, J. Osterhoff, E. Esarey, and W. P. Leemans. *Accurate modeling of the hose instability in plasma wakefield accelerators*. **Physics of Plasmas**, 25(5):056703, 2018. URL <https://doi.org/10.1063/1.5017960>.
- [6] A. Martinez de la Ossa, Z. Hu, M. J. V. Streeter, T. J. Mehrling, O. Kononenko, B. Sheeran, and J. Osterhoff. *Optimizing density down-ramp injection for beam-driven plasma wakefield accelerators*. **Phys. Rev. Accel. Beams**, 20:091301, Sep 2017. URL <https://link.aps.org/doi/10.1103/PhysRevAccelBeams.20.091301>.
- [7] R. Brinkmann, N. Delbos, I. Dornmair, M. Kirchen, R. Assmann, C. Behrens, K. Floettmann, J. Grebenyuk, M. Gross, S. Jalas, T. Mehrling, A. Martinez de la Ossa, J. Osterhoff, B. Schmidt, V. Wacker, and A. R. Maier. *Chirp Mitigation of Plasma-Accelerated Beams by a Modulated Plasma Density*. **Phys. Rev. Lett.**, 118:214801, May 2017. URL <https://link.aps.org/doi/10.1103/PhysRevLett.118.214801>.
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- [15] A. Aschikhin, T. J. Mehrling, A. Martinez de la Ossa, and J. Osterhoff. *Analytical model for the uncorrelated emittance evolution of externally injected beams in plasma-based accelerators*. **Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment**, pages –, 2018. URL <https://www.sciencedirect.com/science/article/pii/S0168900218302195>.
- [16] M. Gross, O. Lishilin, G. Loisch, P. Boonpornprasert, Y. Chen, J. Engel, J. Good, H. Huck, I. Isaev, M. Krasilnikov, X. Li, R. Niemczyk, A. Oppelt, H. Qian, Y. Renier, F. Stephan, Q. Zhao, R. Brinkmann, A. M. de la Ossa, J. Osterhoff, F. J. Grüner, T. Mehrling, C. B. Schroeder, and I. Will. *Characterization of self-modulated electron bunches in an argon plasma*. **Journal of Physics: Conference Series**, 1067(4):042012, 2018. URL <http://stacks.iop.org/1742-6596/1067/i=4/a=042012>.
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