Research output list

Journal articles

[17] T. Gorda, A. Kurkela, J. Österman, R. Paatelainen, S. Säppi, **P. Schicho**, K. Seppänen, and A. Vuorinen, *Degenerate fermionic matter at N^3LO: Quantum Electrodynamics*, (2022), [2204.11893].

[16] T. Gorda, A. Kurkela, J. Österman, R. Paatelainen, S. Säppi, **P. Schicho**, K. Seppänen, and A. Vuorinen, *Soft photon propagation in a hot and dense medium to next-to-leading order*, (2022), [2204.11279].

[15] **P. Schicho**, T. V. I. Tenkanen, and G. White, *Combining thermal resummation and gauge invariance for electroweak phase transition*, (2022), [2203.04284].

[14] J. Ghiglieri, G. D. Moore, **P. Schicho**, and N. Schlusser, *The force-force-correlator in hot QCD perturbatively and from the lattice*, JHEP **02**, 58 (2022), [2112.01407].

[13] J. Hirvonen, J. Löfgren, M. J. Ramsey-Musolf, **P. Schicho**, and T. V. I. Tenkanen, *Computing the gauge-invariant bubble nucleation rate in finite temperature effective field theory*, (2021), [2112.08912].

[12] J. Löfgren, M. J. Ramsey-Musolf, **P. Schicho**, and T. V. I. Tenkanen, *Nucleation at finite temperature: a gauge-invariant, perturbative framework*, (2021), [2112.05472].

[11] L. Niemi, **P. Schicho**, and T. V. I. Tenkanen, *Singlet-assisted electroweak phase transition at two loops*, Phys. Rev. D **103**, 115035 (2021), [2103.07467].

[10] D. Croon, O. Gould, **P. Schicho**, T. V. I. Tenkanen, and G. White, *Theoretical uncertainties for cosmological first-order phase transitions*, JHEP **04**, 055 (2021), [2009.10080].

[9] **P. M. Schicho**, T. V. I. Tenkanen, and J. Österman, *Robust approach to thermal resummation: Standard Model meets a singlet*, JHEP **06**, 130 (2021), [2102.11145].

[8] M. Laine, **P. Schicho**, and Y. Schröder, *A QCD Debye mass in a broad temperature range*, Phys. Rev. D **101**, 023532 (2020), [1911.09123].

[7] M. Laine, **P. Schicho**, and Y. Schröder, *Soft thermal contributions to 3-loop gauge coupling*, JHEP **2018**, 37 (2018), [1803.08689].

Conference proceedings

[6] M. Fraser, D. Björkman, K. Cornelis, B. Goddard, V. Kain, **P. Schicho**, C. Theis, and H. Vincke. *Modelling the Radioactivity Induced by Slow-Extraction Losses in the CERN SPS*. In *Proc. of International Particle Accelerator Conference (IPAC'17)* (May 2017), 1897–1900.

[5] M. A. Fraser, R. G. Alia, B. Balhan, H. Bartosik, C. Bertone, D. Björkman, J. Borburgh, N. Conan, K. Cornelis, L. Gatignon, B. Goddard, Y. Kadi, V. Kain, A. Mereghetti, F. Roncarolo, **P. M. Schicho**, J. Spanggaard, O. Stein, L. Stoel, F. M. Velotti, and H. Vincke. *SPS Slow Extraction Losses and Activation: Challenges and Possibilities for Improvement.* In *Proc. of International Particle Accelerator Conference (IPAC'17)* (Copenhagen. 2017), 611–614.

Theses

[4] **P. M. Schicho**, *Multi-loop investigations of strong interactions at high temperatures*, PhD thesis (U. Bern, 2020).

[3] **P. M. Schicho**, *Inhomogeneous condensation in quark-based QCD effective models via wavelet pseudoparticles*, MA thesis (ETH Zürich, 2016).

[2] **P. Schicho**, *π- and ρ-Meson mass spectroscopy from Lattice QCD*, BA thesis (TU Graz, 2014).

[1] **P. Schicho**, *Increasing the sensitivity of a search for supersymmetry in the single lepton channel with the Stransverse Mass*, Project thesis (HEPHY Vienna, 2014).

Seminar and contributed talks

06/04/2022 *(Non-)perturbative jet dispersion hot QCD*, contributed talk at Quark Matter 2022, Kraków, Poland

30/03/2022 *(Non-)perturbative jet dispersion hot QCD*, contributed talk at Mini workshop: Phase transitions in particle physics, Galileo Galilei Institute, Firenze, Italy

03/03/2022 *Effective theory approach to cosmological phase transitions*, invited seminar talk at Instituto de Astrofísica de Canarias, La Laguna, Spain

28/10/2021 *Gauge independent bubble nucleation rate at finite temperature*, invited seminar talk at University of Basel, Basel, Switzerland

19/10/2021 *Cosmological phase transition: Robust thermal resummation*, invited seminar talk at University of Bern, Bern, Switzerland

13/05/2021 *Cosmological phase transition: Robust thermal resummation*, invited seminar talk at KIAS (online), Seoul, South Korea

29/03/2021 *Soft thermal contributions to 3-loop gauge coupling*, contributed parallel talk at FunQCD (online), Barcelona, Spain

25/11/2020 *How to be precise at the electroweak scale at finite-temperature*, invited seminar talk at Kavli IPMU (online), Tokyo, Japan

13/08/2019 *3-Loop Gauge Coupling in Hot Yang-Mills*, invited seminar talk at Helsinki Institute of Physics, Helsinki, Finland

28/08/2018 *Fun with thermal dimension-six operators*, invited seminar talk at Universidad del Bío-Bío, Chillán, Chile

28/06/2018 *Fun with thermal dimension-six operators*, contributed parallel talk at SEWM 2018, Barcelona, Spain