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Interpretation of particle yields in pp interactions at \sqrt{s} = 8.8, 12.3 and 17.3 GeV within statistical hadronization model

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Hadronization models are successfully describing the particle yields, particularly in high-energy nucleus-nucleus collisions [1]. They are also used to describe elementary processes, like pp interactions. Extensive measurements at \sqrt{s} = 17.3 GeV by NA49 and NA61/SHINE collaborations provided yields of numerous particles, including double-strange hyperons.

Reasonable description of all experimentally measured yields (including the enfant terrible of these models, the ϕ meson) was possible only when the canonical radius of volume containing strange particles was allowed to vary independently [2,3]. In this report, the extension of the hadronization model calculations within ThermalFist [4] using the new results obtained at lower energies by NA61/SHINE will be presented.

- 1. A. Andronic, P. Braun-Munzinger, K. Redlich, J. Stachel, Nature 561,321 (2018)
- 2. T. Matulewicz, K. Piasecki, J.Phys G 48, 085004 (2021)
- 3. K. Piasecki, T. Matulewicz, PoS (accepted), PANIC2021
- 4. V. Vovchenko, H. Stoecker, Comp. Phys. Comm 180, 84 (2019)

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