## The XXVII International Scientific Conference of Young Scientists and Specialists (AYSS-2023)

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## Flash-fit algorithms for circles in Particle Physics

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Circle fit routines are used in helix reconstruction for tracking and in ring reconstruction for particle ID. While accurate fits can be achieved with iterative fits, often resolution can be relaxed in favor of speed. We present and compare two flash-algorithms in terms of resolution, CPU speed and mathematical advantage (linearity). The second algorithm is new internationally.

Primary author: DIMA, Maria (JINR - FLNP)Co-author: DIMA, Mihai-Tiberiu (JINR - FLNP)

Presenter: DIMA, Maria (JINR - FLNP)

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Track Classification: Mathematical Modeling and Computational Physics