

# Operations research and high energy physics

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In the last few decades operations research has made dramatic progress in providing efficient algorithms and fast software implementations to solve practical problems related to a wide range of disciplines, from logistics to finance, from political sciences to digital image analysis. After a brief introduction to the most used techniques, such as linear and mixed-integer programming, I will show how some of these algorithms could find interesting applications in high energy physics, where they could provide alternative solutions to problems related to pattern recognition, track fitting, detector design, detector calibration or detector alignment.

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