

Black hole event generation with BlackMax

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We present a comprehensive black-hole event generator, BlackMax, which simulates the experimental signatures of microscopic and Planckian black-hole production and evolution at proton-proton, proton-antiproton and electron-positron collisions in the context of brane world models with low-scale quantum gravity. The generator is based on phenomenologically realistic models free of serious problems that plague low-scale gravity, thus offering more realistic predictions. The generator includes all of the black-hole graybody factors known to date and incorporates the effects of black-hole rotation, splitting between the fermions, non-zero brane tension and black-hole recoil due to Hawking radiation (although not all simultaneously).

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