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On magnetospheres of spinning black holes[1] A. FORD, K. WILLIAMS, MIKHAIL MEDVEDEV, U. Kansas — Spinning black holes in magnetic fields are though to develop force-free magnetospheres. Their structure is a key to the energy extraction via Blandford-Znajek mechanism, which can power extended relativistic jets of active galactic nuclei. The key assumption for the force-free condition is the presence electron-positron plasma with the density being above the Goldreigh-Julian density. Here we explore the conditions under which the pair-cascade can efficiently occur.

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