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Surgery presentations of cube manifolds reducible to two generators

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Abstract. We derive topological and geometrical properties of cusped connected orientable 3-manifolds obtained by face pairings of the nonregular cube, which are reducible to two-generator fundamental groups. Besides the polyhedral schemata, we derive geometric presentations of the fundamental group, which correspond to spines of the manifolds. Then, we provide simple surgery descriptions of the considered cube manifolds.

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