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Michael Hull* (mhull@uncg.edu). *Maps between 3-manifolds*. Preliminary report.

We study the maps between compact 3-manifolds by considering the induced homomorphisms between fundamental groups. We prove that sets of homomorphisms to 3-manifold groups satisfy a group-theoretic analogue of the Hilbert Basis Theorem, answering a question of Agol-Liu. We apply this theorem to give a descending chain condition on π_1 -surjective maps between compact 3-manifolds, answering a question of Reid-Wang-Zhou. This is joint work-in-progress with D. Groves and H. Liang. (Received August 18, 2019)