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Ayse A Sahin* (asahin@condor.depaul.edu), Department of Mathematical Sciences, DePaul University, 2320 N. Kenmore Ave., Chicago, IL 60614-3504. *The Alpern Multi-Tower Theorem in Z^d and a transference argument.* Preliminary report.

We generalize the Alpern Multi-Tower Theorem to free, measure preserving actions of Z^d . Our method of proof is a transference argument. We prove the result by interpreting it as a tiling theorem. Our main technique is to realize factors of free, measure preserving Z^d actions as invariant measures on generalized domino tilings of R^d . (Received August 10, 2005)