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Sarah Frick and Karl Petersen* (petersen@math.unc.edu), Department of Mathematics, CB 3250 Phillips Hall, UNC, Chapel Hill, NC 27599, and Sandi Shields. The Pascal adic system with arbitrary ordering is essentially expansive and topologically weakly mixing.

We consider arbitrary orderings of the edges entering each vertex of the (downward directed) Pascal graph. Each ordering determines an adic (Bratteli-Vershik) system, with a transformation that is defined on most of the space of infinite paths that begin at the root. We prove that for every ordering the coding of orbits according to the partition of the path space determined by the first three edges is essentially faithful, meaning that it is one-to-one on a set of paths that has full measure for every fully supported invariant probability measure. We also show that for every k the subshift that arises from coding orbits according to the first k edges is topologically weakly mixing. (Received August 20, 2015)