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Jennifer N Jones-Baro* (jennifer.jones@cimat.mx), **Hindy Drillick**, **Alonso Espinosa-Dominguez**, **James Leng**, **Yelena Mandelshtam** and **Cesar E. Silva**. *Models on the unit square of the Chacón, Pascal, and other cutting and stacking transformations.*

The Chacón transformation on the unit interval is an important example in ergodic theory that has been a source of many examples and counterexamples; in particular, it is a measure-preserving transformation that is weakly mixing but not mixing. Likewise, the Pascal transformation is another important transformation, but many questions about its dynamical properties still remain open. We construct transformations on the unit square that are piecewise translations on rectangles and are isomorphic to the Chacón and the Pascal transformations, and then generalize the constructions to any n -dimensional square. This construction can be used for other transformations such as rank-one transformations. Having a construction in two dimensions allows us to visualize the dynamics of the transformations, and we have constructed some animations through which some dynamical properties are observed. This allows us to make numerical estimations and new conjectures. (Received September 25, 2018)