1035-05-731 **Brian Hopkins*** (bhopkins@spc.edu). *Shift Dynamics on Partitions.* Preliminary report.

The operation of partition conjugation can be thought of as shifting all columns of the partition's Ferrers diagram to rows. This gives a directed graph on all partitions of n consisting of 2-cycles (conjugate pairs) and singletons (self-conjugate partitions). Shifting a single column of the Ferrers diagram to the first row is the operation defining Bulgarian Solitaire, which has been studied for some 25 years. Under this operation, the directed graph of n can have as few as one component. In this talk, we consider Bulgarian solitaire and conjugation as extreme cases of a general column-to-row operation. What happens when 2 columns are shifted to rows? when $n-1$ columns are shifted to rows? We present preliminary results on the number of components, cycle partitions, and Garden of Eden partitions on the system of partitions of n when shifitng k columns to rows. (Received September 14, 2007)