1053-57-216 **Heather M. Russell*** (hrussell@math.lsu.edu), Department of Mathematics, Louisiana State University, 303 Lockett Hall, Baton Rouge, LA 70803-4918. *A topological construction for all two-row Springer Varieties.*

Springer varieties are certain subvarieties of the full flag variety in $\mathbb{C}^n$. Given any partition of the number $n$ there is an associated Springer variety. The ones corresponding to partitions of type $(n-k,k)$ are called two-row Springer varieties. For $n$ even Khovanov studies the $(n/2,n/2)$ Springer variety establishing connections between its integral cohomology and a certain invariant of tangles. In doing this he provides a new topological construction of the $(n/2,n/2)$ Springer variety as a subspace of the product of $n$ copies of the two-sphere. We extend Khovanov's construction to all two-row Springer varieties and explore the combinatorial and topological advantages of this new perspective. (Received September 04, 2009)