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Steven R Lippold, OH, **Mihai D Staic*** (mstaic@bgsu.edu), Bowling Green State University, OH , and **Alin Stancu**, GA. *Edge partitions of the complete graph and a determinant like function.*

In this talk we introduce a collection of natural involutions on the set of homogeneous, cycle-free d -partitions of the complete graph K_{2d} . When $d = 2$, or $d = 3$ we show that these involutions are compatible in a certain natural way, and that they can be used to define a determinant-like map $\det^{S^2} : V_d^{\otimes d(2d-1)} \rightarrow k$. We also discuss some properties of the map \det^{S^2} . (Received August 17, 2021)