A decomposition between the split decompositions for a tridiagonal pair.

Let $A, A^*$ denote a tridiagonal pair over a finite dimensional vector space $V$. There are four mutually opposite flags on $V$ which are naturally associated with the tridiagonal pair $A, A^*$. Using these mutually opposite flags, one can induce 12 different decompositions of the underlying vector space $V$. We are interested in the relationship between these 12 decompositions. Given a pair of decompositions with the same induced flag, we study the relationship between them by introducing an intermediate decomposition which has the same induced flag. The ultimate goal of this investigation is to be able to better relate decompositions which do not have the same induced flag. In this talk, we will discuss our findings related to the intermediate decompositions with special focus on the case when $A, A^*$ is thin. (Received July 18, 2017)