

DRAGOMIR DJOKOVIC, University of Waterloo, Waterloo, Ontario  
*The closure diagram for nilpotent orbits of the split real form of  $E_8$*

We have constructed the Hasse diagram for the partially ordered set whose elements are the nilpotent adjoint orbits of the split real form of the simple complex Lie algebra of type  $E_8$ . The partial order is defined via the closure relation. The construction is based on the fact that the Kostant-Sekiguchi correspondence preserves the closure relation. The proof uses in an essential way two kinds of prehomogeneous vector spaces which are naturally attached to each of the above orbits.