1067-05-1773 **Joshua E Ducey*** (jducey21@ufl.edu), 358 Little Hall, Department of Mathematics, University of Florida, Gainesville, FL 32611. *Integer invariants of skew lines in PG(3,q).*

Consider the incidence matrix A with rows and columns indexed by the lines in PG(3,q), where two lines are defined to be adjacent when they are skew. In this talk the Smith Normal Form of A is computed, in the case when the field is of prime order. As for the prime-power case, a conjectured formula for the invariant factors of A is given. I will also discuss some related problems and what work has been done in this general area. Joint work with Peter Sin. (Received September 21, 2010)