occasion to call upon results from Hodge theory, curves, Abelian varieties, surfaces, Chern classes, and the Schubert calculus.

The third and final reason for the inclusion of this chapter is simply the subject itself. The quadric line complex is an object of long-standing attraction: much of the material that follows was developed in the mid-nineteenth century and is still of interest today. It is a subject full of intricate symmetries and surprises; we hope the reader will find it as delightful to study as we did.

1. Preliminaries: Quadrics

Rank of a Quadric

A quadric hypersurface $F \subset \mathbb{P}^n$ may be represented as the locus of a quadratic form

$$Q(X, X) = \sum_{i,j=0}^{n} q_{ij} X_i X_j$$

with the matrix $Q = (q_{ij})$ symmetric. The rank of the quadric F is defined to be the rank of the matrix Q; since the only