Meeting: 998, Houston, Texas, GITLER, Invited Address

998-57-3 **Samuel Gitler***, CINVESTAV del IPN, Department of Mathematics, Ave Inst Poli Nac #2508, CP 07360, Mexico, DF Mexico. *Topology of complete intersections.*

If CP^{n+k} denotes the complex projective space of dimension $n+K$ and $f_1, f_2, \ldots, f_k$ are complex valued polynomials defined, in CP^{n+k}, $X_n(f_1, f_2, \ldots, f_k)$ denotes the set of common zeros of these polynomials. If the zeros of the polynomials intersect transversally, then we obtain a complex manifold of complex dimension n. R. Thom showed that in this situation the diffeomorphism type of these manifolds depends only on the degrees of the polynomials. We use the notation $X_n(\underline{d})$ where $\underline{d} = (d_1, d_2, \ldots, d_k)$, the $d_i's$ are the degrees of the polynomials. We study when $X_n(\underline{d})$ and $X_n(\underline{d}')$ are of the same homotopy type or of the same diffeomorphism type. (Received August 12, 2003)