

## **The Family Of Perfect Ideals of Codimension 3, of Type 2 with 5 Generators**

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Perfect ideals of codimension 3 have been investigated for a long time. Since the Buchsbaum-Eisenbud discovery of the structure of Gorenstein ideals of codimension 3, the structure of perfect ideals of codimension 3 with 4 generators (almost complete intersections) can also be obtained via linkage. Hence the smallest class of perfect ideals of codimension 3, whose structure is not known are those with five generators, of Cohen-Macaulay type two. In 1977, Anne Brown classified such ideals via linkage with additional assumption that one of the Koszul relations on the generators is also one of minimal generators of the first syzygy module of the ideal. In this talk, we give another family of such perfect ideals in the linkage class of complete intersections and show that the generic doubling of this family of perfect ideals gives you a different family which is not a specialization of Kustin-Miller model.