Matsumoto's Theorem and Exact Sequences in Algebraic K-theory

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Matsumoto's theorem gives a presentation of the K_2 of a field. The hard part of the theorem is to show that some easy relations between generators actually suffice for the presentation. In 1975 I found a proof different from Matsumoto's in which I used the presentation of the K_1 of an ideal in a Dedekind domain and Milnor's K-theory for fields. The idea of that proof was to use a relative exact sequence. In the talk it will be shown that Matsumoto's theorem can be seen as a more direct consequence of the relative and localization exact sequences in algebraic K-theory