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**Eric S Brussel\***, 400 Dowman Drive, Atlanta, GA 30322. *A Gersten sequence for 2-dimensional regular local rings.* Preliminary report.

Let  $A$  be a 2-dimensional noetherian regular local ring with residue field  $k$ . Denote by  $F = \text{Frac } A$  the field of fractions of  $A$ , and for each prime  $\mathfrak{p} \in \text{Spec } A$ , write  $k(\mathfrak{p}) = \text{Frac}(A/\mathfrak{p})$ . We present a proof of the exactness of the Gersten sequence of  $K$ -groups

$$0 \rightarrow K_2(A) \rightarrow K_2(F) \rightarrow \bigoplus_{\mathfrak{p}} K_1(k(\mathfrak{p})) \rightarrow K_0(k) \rightarrow 0$$

Here  $\mathfrak{p}$  runs over the set of height 1 prime ideals of  $A$ ,  $K_2(F) \rightarrow K_1(k(\mathfrak{p}))$  is the tame symbol map, and the last map  $\text{ord}_{\mathfrak{p}}: K_1(k(\mathfrak{p})) = k(\mathfrak{p})^{\times} \rightarrow K_0(k) = \mathbb{Z}$  is defined on the 1-dimensional domain  $\overline{A} = A/\mathfrak{p}$  by  $\text{ord}_{\mathfrak{p}}(\overline{a}) = \text{length } \overline{A}/\overline{a}$ . An application of this result to the study of the Brauer group of  $F$ , in the form of a Bloch-Ogus sequence for étale cohomology groups, will be discussed in a talk later in this session, *The Brauer group of a 2-dimensional regular local ring.* (Received September 28, 2005)