1014-17-1611   **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 $F = \operatorname{Frac} A$ the field of fractions of A, and for each prime $\mathfrak{p} \in \operatorname{Spec} A$, write $k(\mathfrak{p}) = \operatorname{Frac}(A/\mathfrak{p})$. We present a proof of the exactness of the Gersten sequence of K-groups

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

Here $\mathfrak{p}$ runs over the set of height 1 prime ideals of A, $K_2(F) \to K_1(k(\mathfrak{p}))$ is the tame symbol map, and the last map $\operatorname{ord}_{\mathfrak{p}} \colon K_1(k(\mathfrak{p})) = k(\mathfrak{p})^\times \to K_0(k) = \mathbb{Z}$ is defined on the 1-dimensional domain $\overline{A} = A/\mathfrak{p}$ by $\operatorname{ord}_{\mathfrak{p}}(\overline{a}) = \operatorname{length} \overline{A}/\overline{a}$. 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)