Homological invariants of systems of simple braids

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Abstract. Hurwitz equivalence on systems of simple braids is studied, which can be used in the study of surface braids and surface links. In this talk, we define a matrix for a system of simple braids by using the first homology classes of a punctured disk. As applications, we give some invariants of surface braids by using the matrices obtained from the systems of their braid monodromies.