1062-16-151   **Shiping Liu*** (`shiping.liu@usherbrooke.ca`), Département de mathématiques, Université de Sherbrooke, Sherbrooke, Quebec J1K 2R1, Canada. *Coverings of the derived categories of algebras.* Preliminary report.

This is a joint work with Raymundo Bautista. The theory of coverings of algebras is very useful in the study of representations of algebras. It is natural to ask if one can apply this theory to study the derived categories of a finite dimensional algebra. In this work, we are concerned with the problem as to when a Galois covering of finite dimensional algebras induces a Galois covering of their derived categories. Although the answer is probably negative in general, we shall provide an affirmative answer in a very special case. This result will be used in the future to study the derived categories of a finite dimensional with radical squared zero. (Received August 04, 2010)