

Franco-Brazilian characteristic classes

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This is a survey on the recent results obtained jointly by Brazilian and French researchers in the domain of characteristic classes for singular varieties. I will focus on two directions.

One of the main ingredients in the definition of Schwartz-MacPherson classes is the local Euler obstruction. I will present the recent results obtained by Nicolas Dutertre (Angers) and Nivaldo Grulha (USP, São Carlos) concerning Euler local obstruction, more precisely in the case of a polynomial function $f : X \rightarrow \mathbb{C}$ where X is a complex algebraic variety.

The second part will concern the applications in cobordism theory of singular varieties and maps of the so-called Wu classes. These classes coincide with the Mather classes, another ingredient of the definition of Schwartz-MacPherson classes. That is a joint work with Marcelo Saia (USP, São Carlos) and Alice Libardi and Eliris Rizzioli (UNESP, Rio Claro).