

鹿児島大学数理情報科学談話会

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日時：2017年11月8日（水）15:00 - 16:00

場所：理学部 2 号館 404 室

講師：Prof. Jean-Paul Brasselet

(Institut de Mathématique de Luminy)

題目：What a coincidence !

(On the Lefschetz Coincidence Theorem)

Abstract:

The Lefschetz coincidence Theorem is a generalisation of the famous Lefschetz fixed points Theorem. Coincidence points of two maps $f, g: X \rightarrow Y$ are points $x \in X$ such that $f(x) = g(x)$. In the situation of compact oriented manifolds of the same dimension, there are many ways to define a Lefschetz coincidence number. I will explain this in details. On the one hand, the Lefschetz coincidence Theorem has been generalized in the case of compact manifolds of different dimensions (in this case one has a Lefschetz coincidence homology class). On the other hand, Goresky and MacPherson generalized the Lefschetz fixed points Theorem in the case of singular varieties (in the framework of intersection homology).

In the lecture, I will explain results obtained on the one side with Alice Libardi, Eliris Rizziolli and Thais Monis from UNESP, Rio Claro, and Marcelo Saia from USP, São Carlos, all from Brazil, and on the other side with Tatsuo Suwa from Hokkaido University. The results concern a Lefschetz coincidence Theorem for singular varieties and local calculus of the Lefschetz coincidence class.

The lecture will be elementary and I will provide suitable examples.

お問合せ：談話会委員 田中 恵理子 (✉ erico@sci.kagoshima-u.ac.jp) ☎ 099-285-8988)