SEMPARIS – Séminaires en région parisienne

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TBA

Mercredi 22 Janvier 2020, 10 :30
IHES, Amphithéâtre Léon Motchane
Domaines : math

Titre : *Weight Structures on Triangulated Categories*

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Résumé : *Weight structures give certain filtrations of triangulated categories ; the definition is a certain cousin of that of t-structures. Particular cases of weight decompositions give stupid filtrations of complexes and cellular towers for spectra. I will also mention interesting motivic and Hodge-theoretic examples of weight structures along with methods for constructing them. Weight structures yield weight filtrations and spectral sequences for cohomology as well as certain weight complex functors. In particular, there exists an exact conservative functor from (relative) constructible Voevodsky motives into complexes of Chow motives, whereas the corresponding weight spectral sequences vastly generalize Deligne's ones. Lastly, the relations between weight structures and t-structures yield new methods for constructing t-structures and proving their properties.*