

A B S T R A C T

The Osofsky-Smith Theorem in rings, modules, categories, torsion theories, and lattices

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The renown *Osofsky-Smith Theorem* (O-ST), invented in 1991, says that a cyclic (finitely generated) right R -module such that all of its cyclic (finitely generated) subfactors are CS modules is a finite direct sum of uniform submodules.

In this talk we present various extensions of this theorem to Grothendieck categories (the *Categorical O-ST*), module categories equipped with a hereditary torsion theory (the *Relative O-ST*), and modular lattices (the *Latticial O-ST*); it illustrates a general strategy which consists on putting a module-theoretical concept/result into a latticial frame (we call it *latticization*) in order to translate that concept/result to Grothendieck categories (we call it *absolutization*) and module categories equipped with a hereditary torsion theory (we call it *relativization*).