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Sommario/riassunto

Held during algebraic topology special sessions at the Vietnam Institute for Advanced Studies in Mathematics (VIASM, Hanoi), this set of notes consists of expanded versions of three courses given by G. Ginot, H.-W. Henn and G. Powell. They are all introductory texts and can be used by PhD students and experts in the field. Among the three contributions, two concern stable homotopy of spheres: Henn focusses on the chromatic point of view, the Morava $K(n)$ -localization and the cohomology of the Morava stabilizer groups. Powell's chapter is concerned with the derived functors of the destabilization and iterated

loop functors and provides a small complex to compute them. Indications are given for the odd prime case. Providing an introduction to some aspects of string and brane topology, Ginot's contribution focusses on Hochschild homology and its generalizations. It contains a number of new results and fills a gap in the literature. .
