## **Module Valuations and Quasi-Valuations**

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**Abstract :** Suppose F is a field with valuation v and valuation domain  $O_v$ , and R is an  $O_v$ -algebra. It is known that there exists a filter quasi-valuation on R; the existence of a quasi-valuation yields several important connections between  $O_v$  and R, in particular with respect to their prime spectra. In this paper, the notion of a module valuation is introduced. It is shown that any torsion-free module over  $O_v$  has an induced module valuation. Moreover, several results connecting the filter quasi-valuation and module valuations are presented.

Keywords : valuations, quasi-valuations, prime spectrum, algebras over valuation domains

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