## THE FIELDS INSTITUTE

ABSTRACTS 1.2

FOR RESEARCH IN MATHEMATICAL SCIENCES

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On t-structures and derived equivalences

We construct t-structures in  $\mathbf{D}(R-Mod)$  (the unbounded derived category of R- Modules) and we study conditions under which we can restrict it to the bounded cases,  $\mathbf{D}^{b}(R-Mod)$ and  $\mathbf{D}^{b}(R-mod)$ . As applications we obtain an alternative proof to Rickard s theorem.