1027-16-43 **Manuel Saorin*** (msaorinc@um.es), Departamento de Matematicas, Universidad de Murcia. Aptdo. 4021, 30100 Espinardo, Murcia, Spain. *One-sided split torsion torsionfree triples in module categories.*

In 1965 Jans introduced and classified the torsion torsionfree classes in the category $Mod-A$ of (right) modules over an associative ring with unit A. Such a class $\mathcal{T}$ gives rise to a uniquely determined triple $(\mathcal{C},\mathcal{T},\mathcal{F})$, that we call TTF, in which both pairs $(\mathcal{C},\mathcal{T})$ and $(\mathcal{T},\mathcal{F})$ are torsion theories. Jans proved that TTF triples in Mod_A are in bijection with idempotent (two-sided) ideals of A. By restriction, those TTF triples $(\mathcal{C},\mathcal{T},\mathcal{F})$ in which both torsion theories $(\mathcal{C},\mathcal{T})$ and $(\mathcal{T},\mathcal{F})$ split are in one-to-one correspondence with (idempotent ideals generated by) central idempotents of A.

The existence of TTF triples in which only one of the constituent torsion theories splits has been known since 1970, but the idempotent ideals corresponding to them by Jans' correspondence had not been identified, thus leaving open their classification for forty years. In a recent work with Pedro Nicolas we managed to find such a classification and that will be the content of our talk. (Received February 05, 2007)