LUCIEN HADDAD, Royal Military College of Canada
Hereditarily Semi-Rigid Families of Linear Orders

Let X be a non-empty set and ρ be a relation on X. A partial map $f : \mathrm{dom}(f) \to X$ (where $\mathrm{dom}(f) \subseteq X$) is called a *partial endomorphism* of ρ if for every $a_1, \ldots, a_t \in \mathrm{dom}(f)$, $(a_1, \ldots, a_t) \in \rho \Rightarrow (f(a_1), \ldots, f(a_t)) \in \rho$. A partial endomorphism f of ρ is *trivial* if f is a subfunction of the identity map or a subfunction of a constant map on X. A relational structure $\mathcal{R} := (X, \rho_1, \ldots, \rho_m)$ is called *hereditarily semi-rigid* if its partial endomorphisms are all trivial, i.e., if for every partial function f on X, if f is a partial endomorphism of each of ρ_1, $\rho_2, \ldots, \rho_m$, then f is trivial. In this talk, we present some of our latest results concerning hereditarily semi-rigid families of linear orders on a set X. This is joint work with Maurice Pouzet and Imed Zaguia.