1107-13-238 **Dario Spirito*** (spirito@mat.uniroma3.it). *Semistar operations and topology.*

Let R be an integral domain and $\mathrm{SStar}(R)$ be the set of semistar operations on R. We introduce a topology on $\mathrm{SStar}(R)$ such that the set $\mathrm{Over}(R)$ of overrings of R (with the Zariski topology) becomes a subspace of $\mathrm{SStar}(R)$. We show that this topology can be used in particular to study finite-type semistar operations: we show that the infimum of a compact set Δ of finite-type operations is still of finite type, and that the converse is true if Δ is induced by localizations of R or by valuation domains. We also explore the relationship between the sets of spectral and of eab semistar operations, showing that, while their topological structure is very similar, there are concrete differences in their algebraic properties. Finally, we show that the sets of finite-type semistar operations, of finite-type spectral semistar operations and finite-type eab semistar operations are spectral, that is, they are homeomorphic to the prime spectrum of some ring.

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