Commutative Ring Theory Days 2010

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SEMISTAR NOETHERIAN DOMAINS

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We study the class of semistar Noetherian domains, defined by having the Ascending Chain Condition on the set of quasi semistar ideals. We give many different characterizations of this class, involving associated prime ideals, local Noetherianity, Delta-Noetherianity and topological Noetherianity.
Finally, we discuss how semistar Noetherian domains provide a framework in which the problem of classifying injective modules can be successfully approached.

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