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Sharp partial closure operator. (English) [Zbl 1463.06013](#)
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Summary: As an improvement of existing relationships among collections of sets, closure operators and posets, a particular, so called sharp partial closure operator (SPCO) is introduced. It is proved that there is always a unique SPCO corresponding to a given partial closure system. Moreover, an SPCO has the greatest domain among all partial operators corresponding to a given system. If it is a function, an SCPO is a classical closure operator. Dealing with partial closure systems, we introduce principal ones, corresponding to principal ideals of a poset and accordingly, we define principal SPCO's. Finally, we prove a representation theorem for posets in terms of principal SPCO's and principal partial closure systems.

MSC:

[06A15](#) Galois correspondences, closure operators (in relation to ordered sets)
[06A06](#) Partial orders, general

Keywords:

[partial closure operator](#); [partial closure system](#); [centralized system](#)

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