

Superselection theory for stacked systems

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We consider the DHR superselection sector theory for stacked topologically ordered systems. It is relatively easy to construct sectors of the stacked system from sectors of the individual layers. This implies for example that so-called invertible phases have trivial superselection theory. The question if all sectors of the stacked system are obtained in this way is more subtle. We will show that under physically reasonable conditions, this is the case and we can give a complete characterisation of the sector theory of the stacked system. Based on work in progress with Sven Bachmann, Alan Getz and Naomi Wray.