

## When Does Booleanization Commute with Lindelöfication in the Category of Locales?

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Let  $L$  be a completely regular locale,  $\mathfrak{B}L$  be its Booleanization, and  $\lambda L$  its Lindelöf reflection. In the talk I will present characterizations of those  $L$  for which the locales  $\mathfrak{B}(\lambda L)$  and  $\lambda(\mathfrak{B}L)$  are isomorphic. I will show that they are exactly those in which every subset with a dense join has a countable subset with a dense join. The talk will be based on the first part of the article [1].

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## References

- [1] T. Dube, *When Boole commutes with Hewitt and Lindelöf*, Appl. Categor. Structures (to appear).