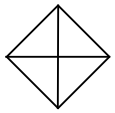

Monotone Algebras

1 Why

TODO: changed to subset system

Closure under monotone limits is a weaker condition than that included in the definition of sigma algebras, but is sufficient if the set is also an algebra. TODO: why

2 Result

If a subset algebra is a monotone space, then it is a countably summable subset algebra.

Proposition 1. *A subset algebra is a countably summable if either:*

1. *the limit of a nondecreasing sequence of distinguished sets is distinguished*
2. *the limit of a nonincreasing sequence of distinguished sets is distinguished.*

Proof. TODO □