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VectorSpace Holden Lee
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I present a formalisation of basic linear algebra based completely on locales, building off HOL-Algebra.

It includes the following: enumerate

- basic definitions: linear combinations, span, linear independence
- linear transformations
- interpretation of function spaces as vector spaces
- direct sum of vector spaces, sum of subspaces
- the replacement theorem
- existence of bases in finite-dimensional vector spaces, definition of dimension
- rank-nullity theorem