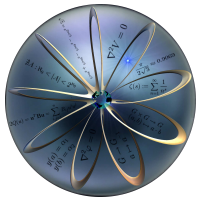

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absolutely flat

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A ring A is *absolutely flat* if every module over A is flat.

For commutative rings with unity, a ring is absolutely flat if and only if every principal ideal is idempotent.

Some properties:

- Boolean rings are flat.
- Homomorphic images of absolutely flat rings are flat.
- Absolutely flat local rings are fields.
- In absolutely flat rings, non-units are zero divisors.

References

[1] *Introduction to* , by Atiyah and MacDonald.