

## Constructing mode mismatch error signals for a 2 $\mu\text{m}$ light Silicon coupled cavity at Gingin

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Minimising optical losses in a gravitational wave (GW) detector is important if advanced schemes, such as squeezing and the white light cavity, are to be fruitful. Mode mismatch is a source of optical loss and therefore we need appropriate error signals to minimise it. We present an optical experiment that will be used in the Gingin 2  $\mu\text{m}$  Silicon coupled cavity. This experiment is under construction, but simulations already show we can obtain the error signals we need.

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