

Sagnac Issues

- ✓ **low sensitivity at low frequency**
- ✓ **signal extraction**
- **thermal noise in delay line**
- **fringe contrast (beam splitter performance)**
- **scattered light in delay lines**
- **power handling**
- **deay line mirror size**
- **unknowns ???**

Current and Future Work on Sagnacs

- **thermal noise calculations using two point correlation function**
- **use of the reciprocal port in a polarization rotating interferometer**
- **Use of a low coherence source**
- **optimizing cavity design against thermal distortions**
- **use of shorter wavelengths or novel delay line geometry to meet size constraints**

Note 1, Linda Turner, 04/21/98 09:27:50 AM
LIGO-G980049-30-M