

# QND OPTICAL TOPOLOGY

FOR LIGO-III

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PRESENTATION TO AIC, LSC

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For details, see Kimble, Levin,  
Matsko, Thorne & Vyatchanin  
Phys Rev D, submitted. - Available  
on gr-qc.

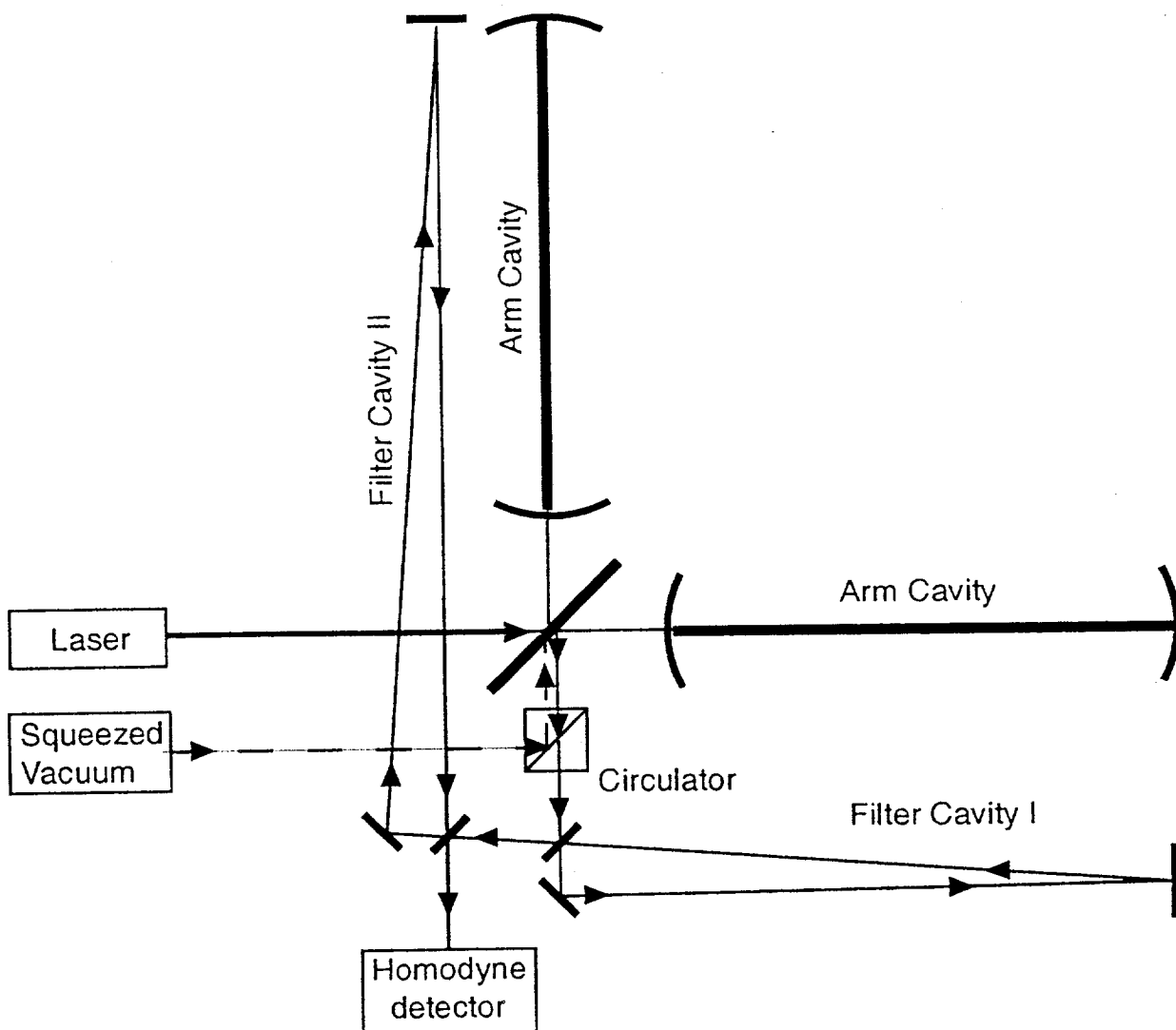


FIG. 2. Schematic diagram of a squeezed-variational interferometer. A variational-output interferometer differs from this solely by replacing the input squeezed vacuum by ordinary vacuum.

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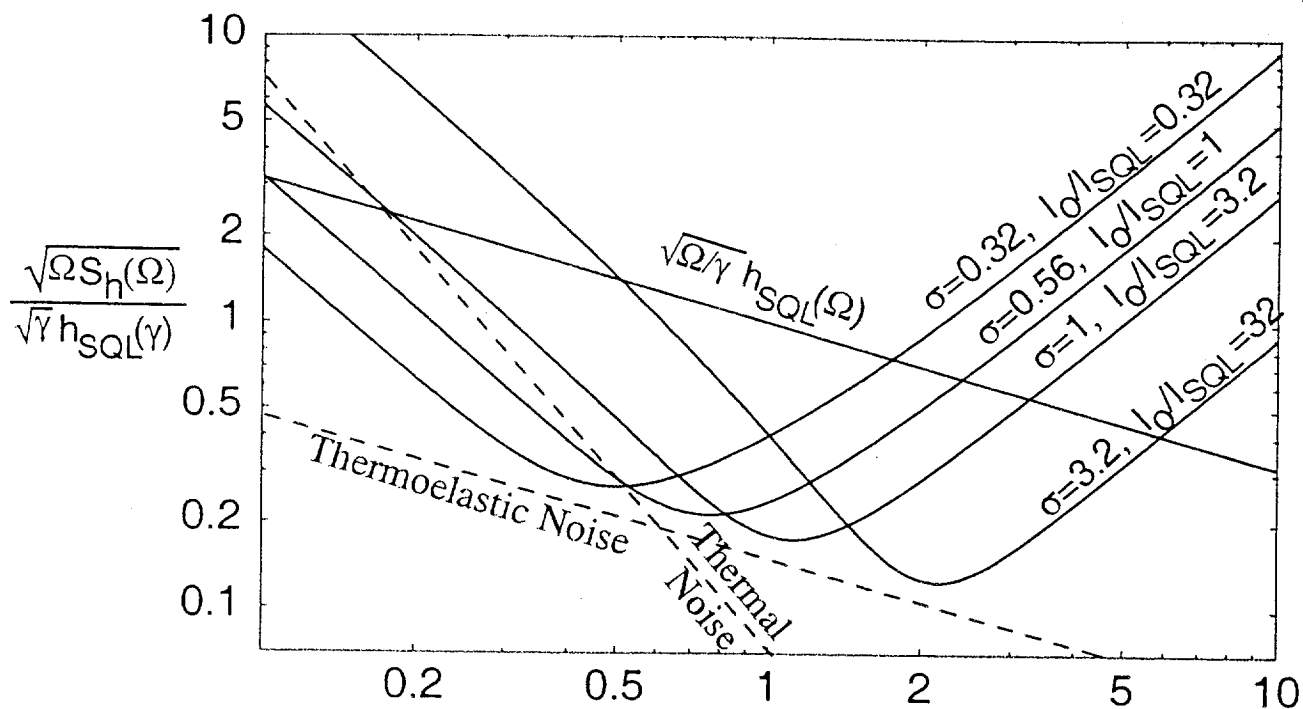


FIG. 14. Noise curves for SQL interferometers with noise minima  $\mu = 0.18$  and various values of the frequency parameter  $\sigma$ . The vertical axis is weighted by  $\sqrt{\Omega/\gamma}$  so the curves give an indication of the relative noise in searches for waves from inspiraling binaries; see text. The noise curves are labeled by the power  $I_o/I_{SQL}$  required by a squeezed-variational interferometer to achieve the same noise level.

*Note 1, Linda Turner, 09/12/00 10:24:37 PM*  
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