

#### Latest Data from the Basement Anelastic Relaxation Facility

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Hanford LSC meeting, 2001



#### **Suspensions Apparatus**

#### Automated fiber pulling lathe

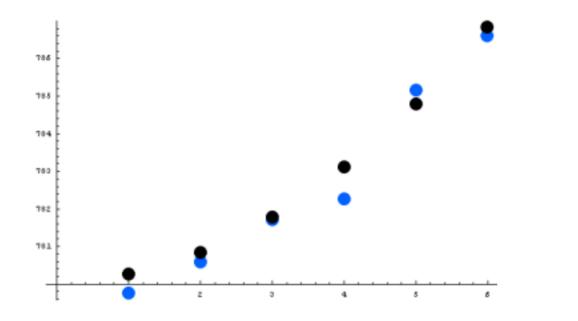




Q-measurement rig

LIGO R&D

## Mode frequencies well fit by uniform model



Measured data

•Fit of model to data

LIGO

LIGO R&D



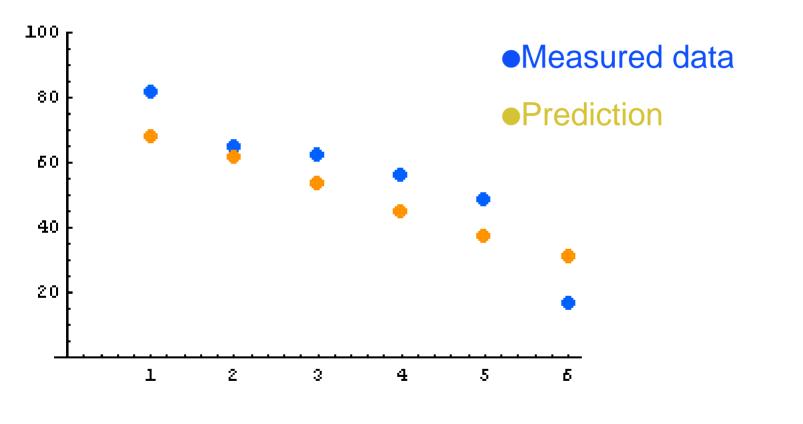
## Independent Measurement of Dilution Factor

For violin mode of fiber at thermoelastic strain point,

## (df/dT)/f=(dE/dT)/2ED

where D is the dilution factor.

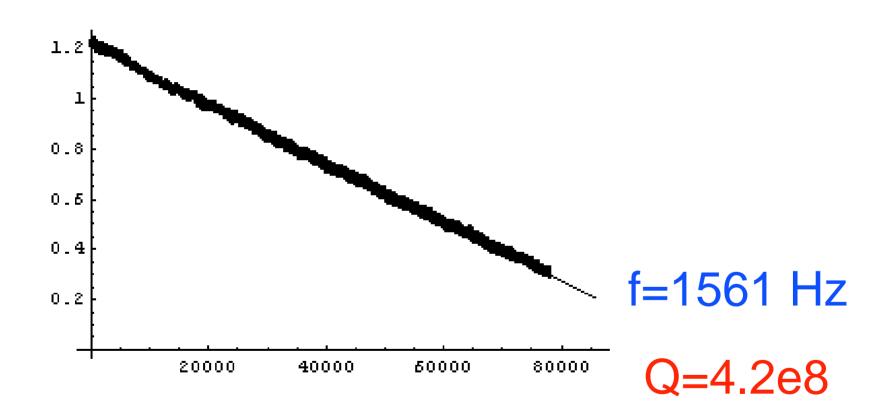
# LIGO Measured vs. Predicted Dilution Factors



(df/dT)/f=(dE/dT)/2ED



#### Ringdown of 1<sup>st</sup> Harmonic



LIGO R&D



## Measured Q's, very preliminary

