

ELL301

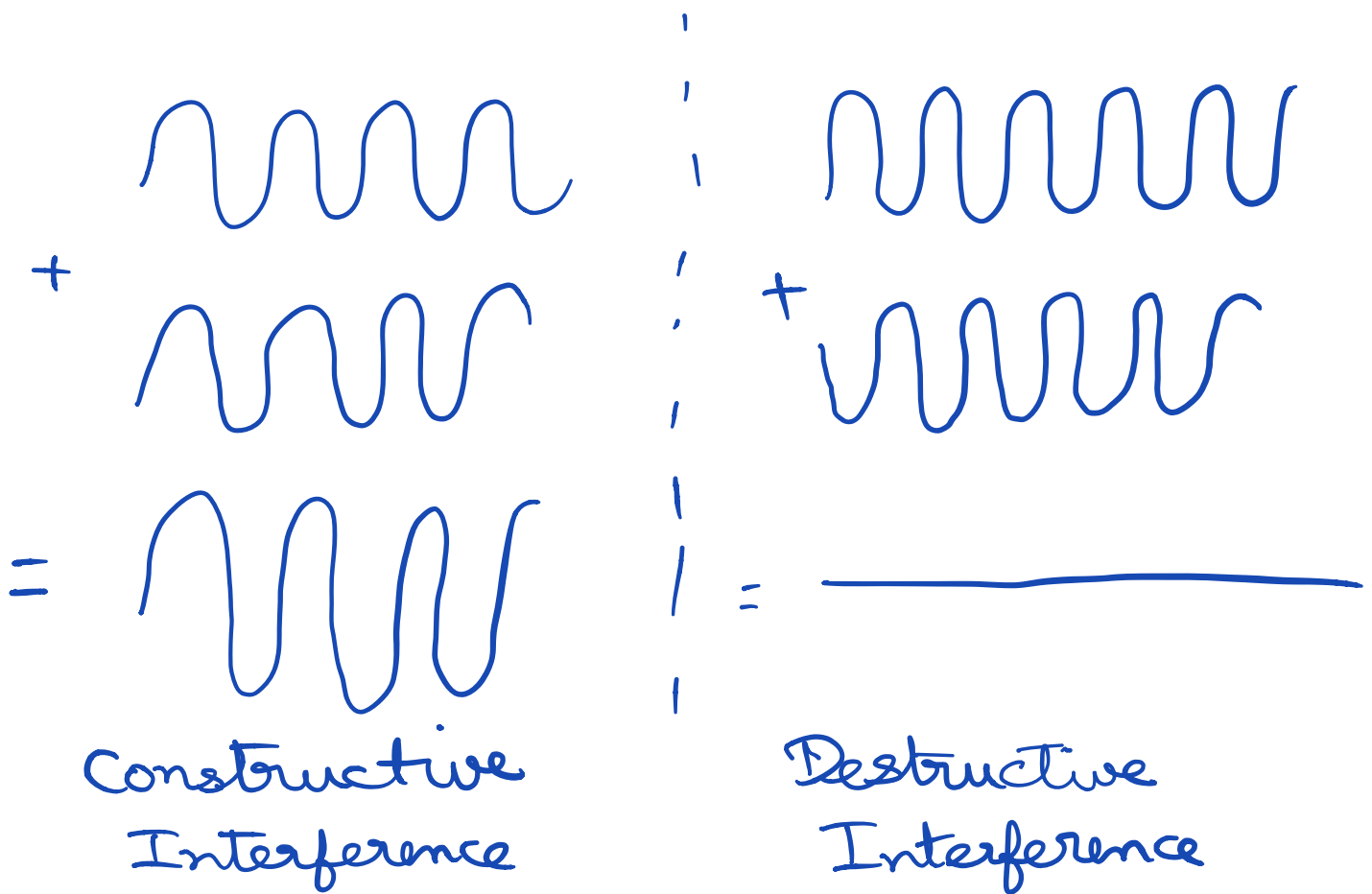
15.03.2019

'L' \uparrow
MLT⁻² \nwarrow
Linear Position & force
 \uparrow

LVDT, Strain gauges \rightarrow Ch 6 of Transducer manual (ELP225)

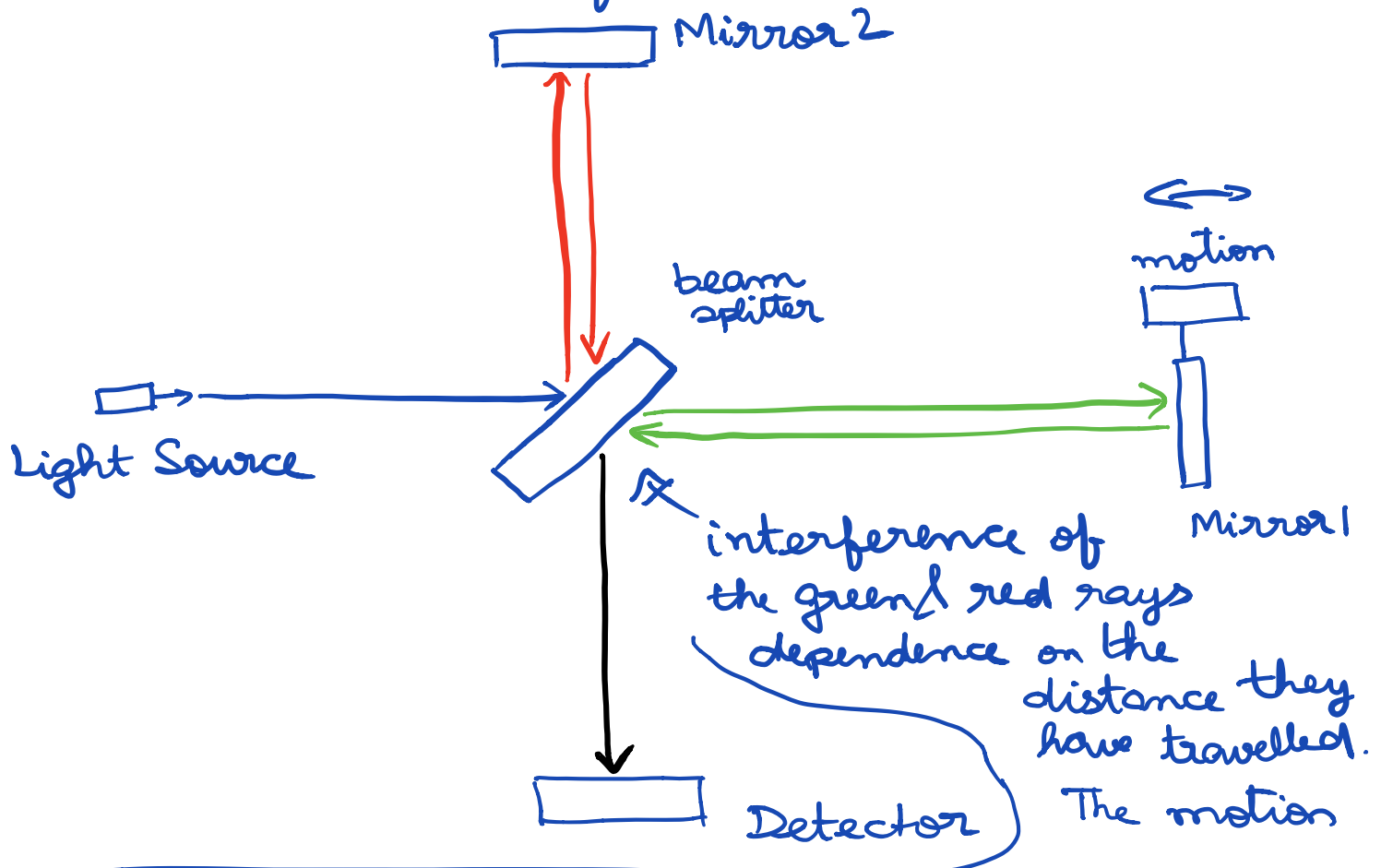
Also look for problems in this & Nakra + Chaudhry.

Interference as a sensor of position



This property can be used to sense changes in position. How?

Michelson Interferometer



to be sensed changes the length of the path that light travels (in green ray) and so changes the amount of interference that happens.

— This is also a relative measurement to minimize effect of global disturbances.

— LIGO → Nobel Prize 2017
Use of interferometer to detect gravitational waves.