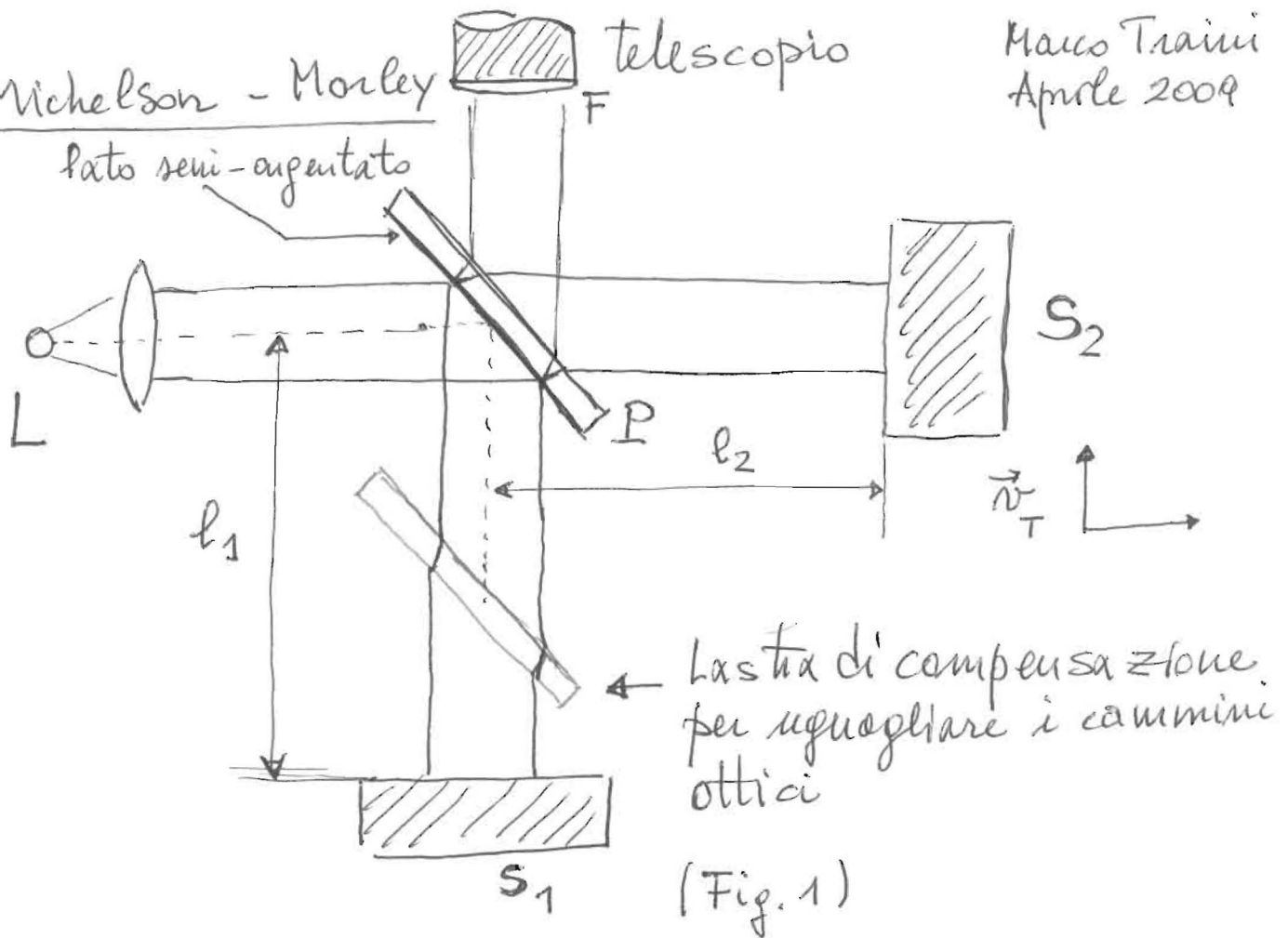


Michelson - Morley

Marco Traini
Aprile 2009



P → specchio semi-argentato

S_1, S_2 → specchi

L → sorgente luminosa

F → telescopio

cammino PS_1P con \vec{v}_T lungo $\vec{S_1P}$

$$(1.1) t_1 = \left(\frac{1}{c-v} + \frac{1}{c+v} \right) l_1 = \frac{2l_1}{c(1-v^2/c^2)}$$

cammino PS_2P

P segue uno spostamento δ mentre la luce viaggia da P a S_2 .

$$(1.2) \frac{v}{\delta} = \frac{c}{\sqrt{\delta^2 + l_2^2}} \Rightarrow \delta = \frac{v}{c} \frac{l_2}{\sqrt{1-v^2/c^2}}$$

