

Title: PSI - L.Susskind Talk

Date: Sep 04, 2009 02:00 PM

URL: <http://pirsa.org/09090039>

Abstract:

$$ds^2 = -dt^2$$

$$ds^2 = -dt^2 + d\Omega^2$$

$$+ a^2(t) d\Omega_3$$

$$S = -dt + a^2(t) d\chi$$

$$\left(\frac{\dot{a}}{a} \right)^2 = \rho - \frac{1}{a^2}$$

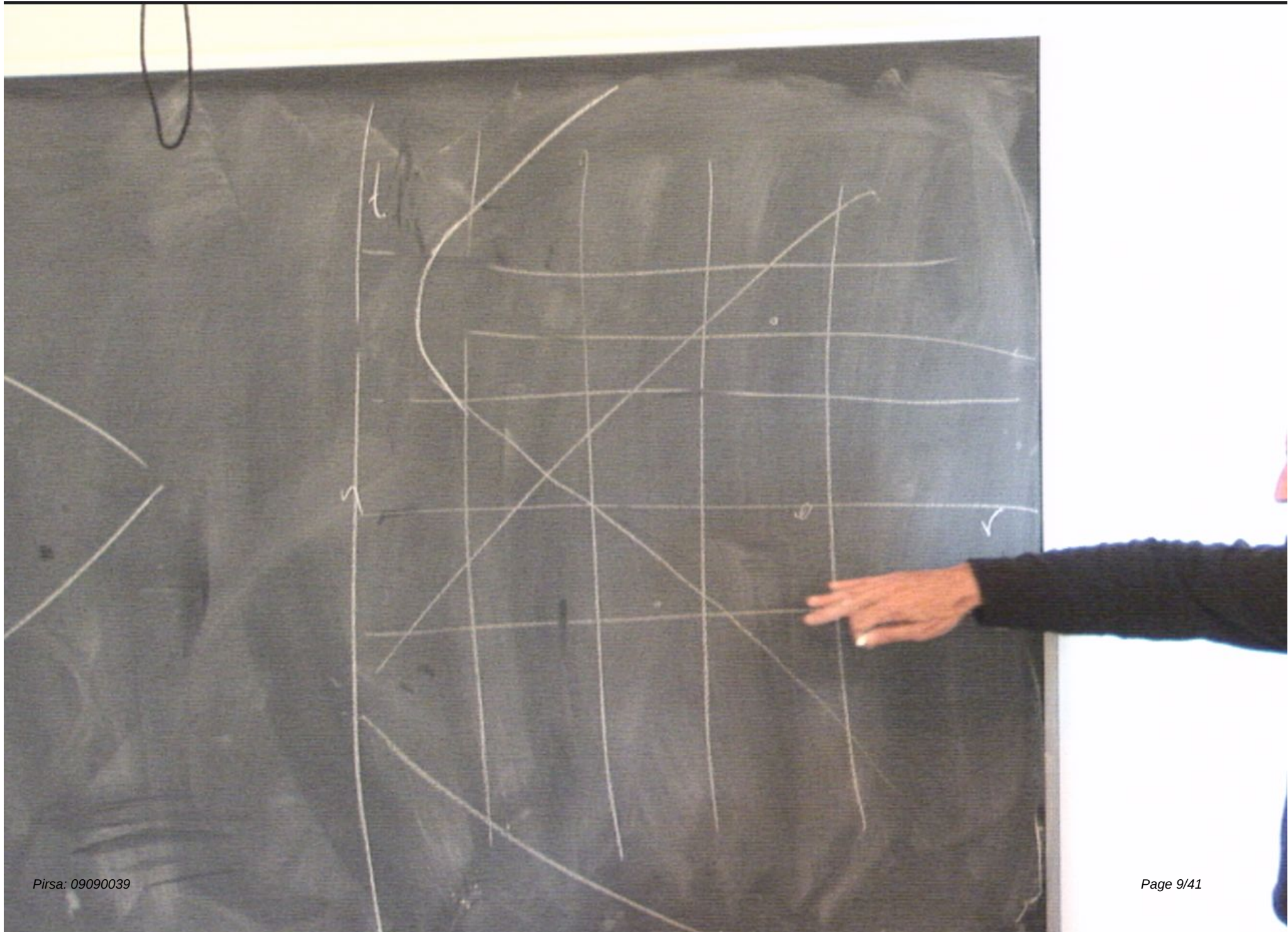
$$\left(\frac{\dot{a}}{a} \right)^2 = H^2 - \frac{1}{a^2}$$

$$\frac{\dot{a}}{a} = H \rightarrow a \sim e^{Ht}$$

q ~ OHx
H

$$\left(\frac{\dot{a}}{a}\right)^2 = H^2 - \frac{1}{a^2}$$

$$\frac{\dot{a}}{a} = H \rightarrow a \sim \frac{1}{H} \cosh Ht$$



$$+ a^2(t) d\Omega_3^2$$

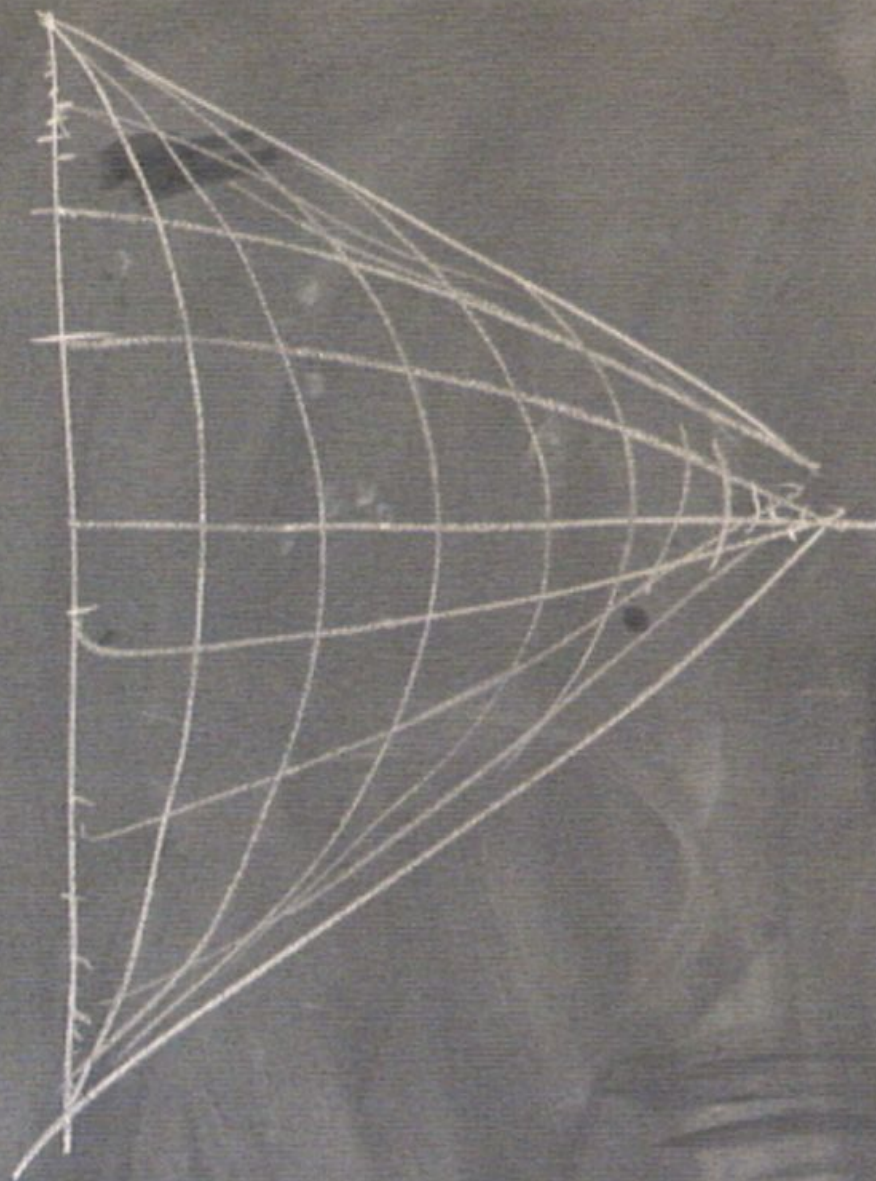
$$H \cosh Ht$$



$$+ a^2(t) d\Omega_3^2$$

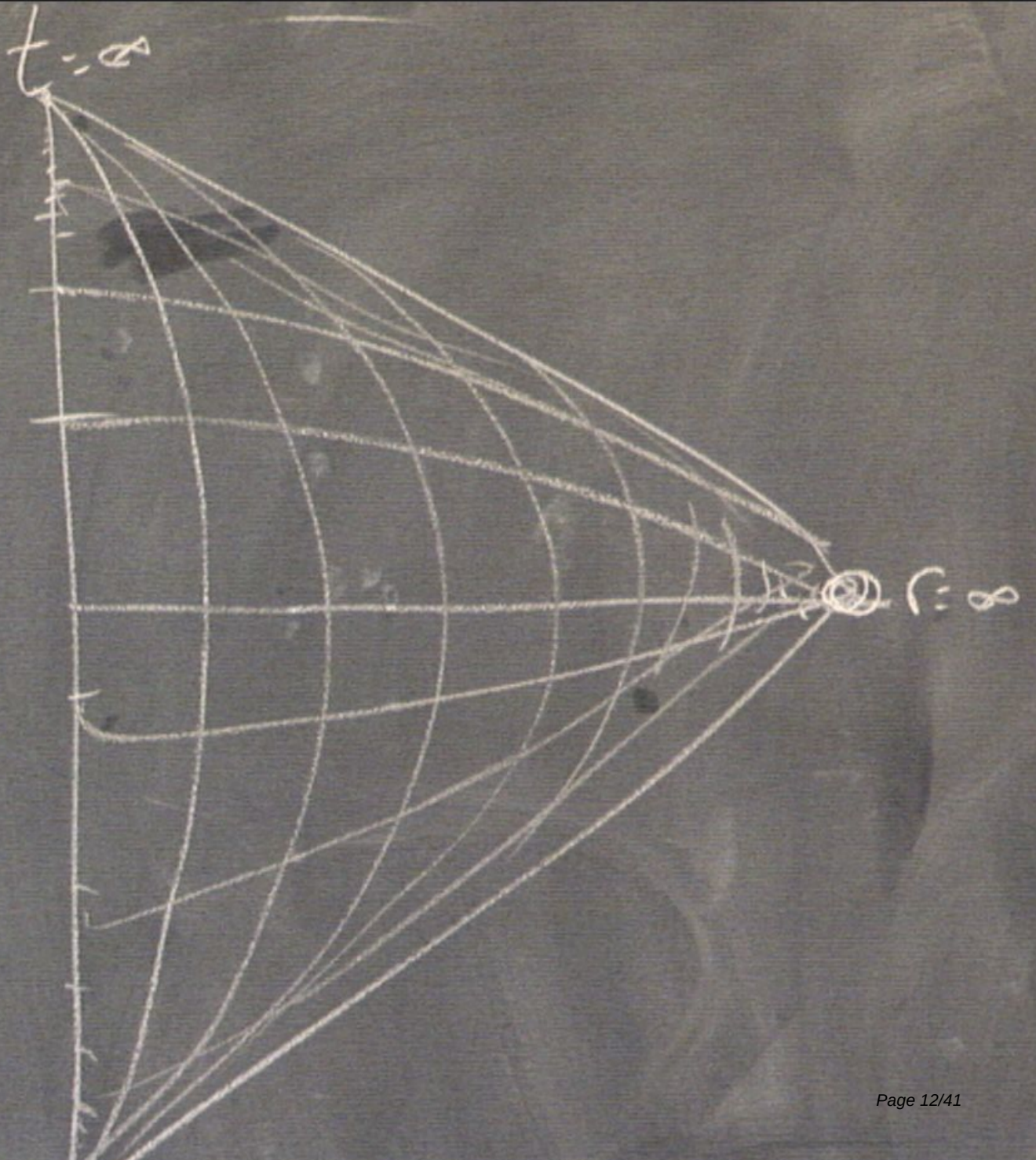
$$\frac{1}{a^2}$$

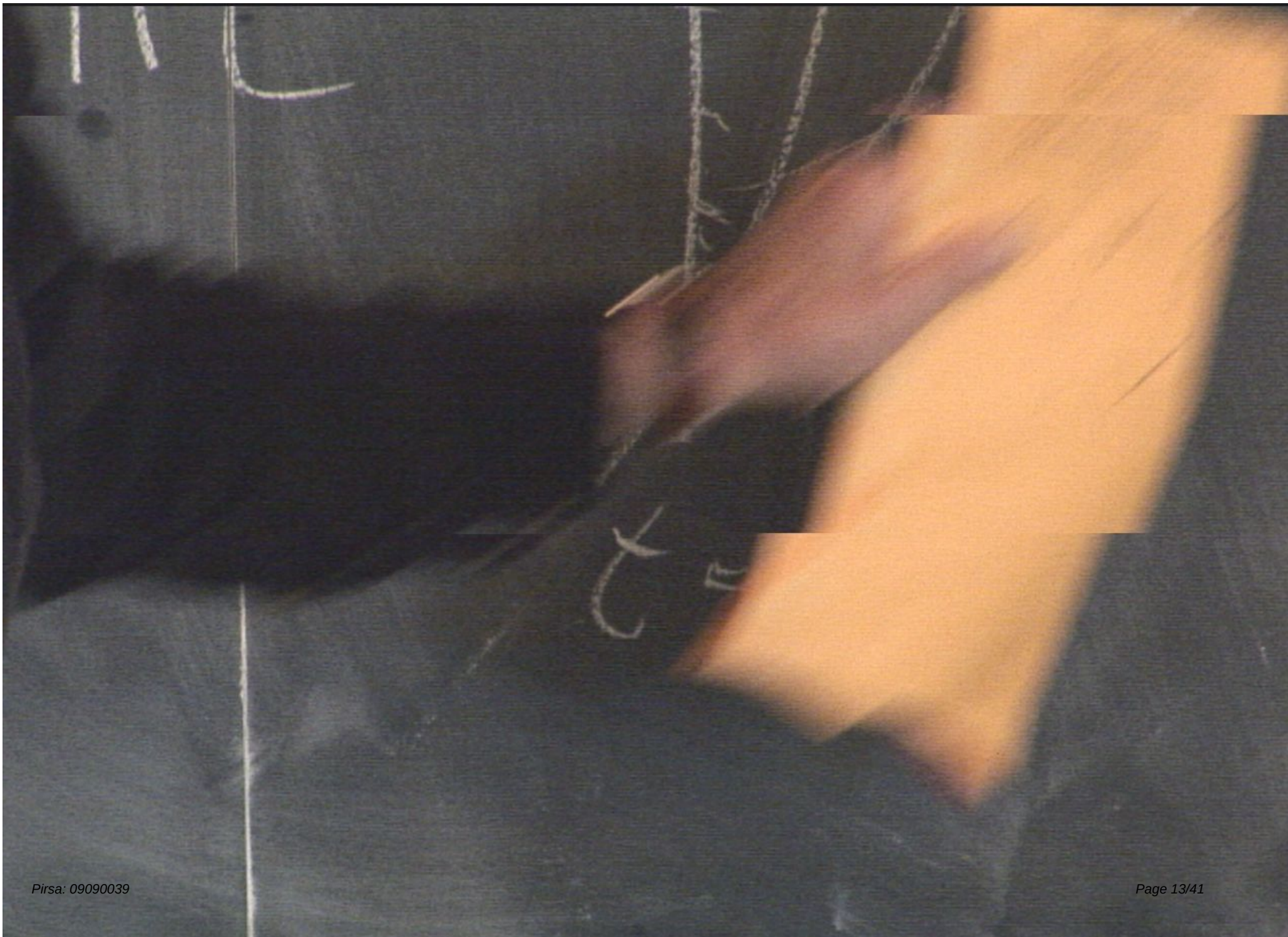
$$r \sim \frac{1}{H} \cosh Ht$$



2-3

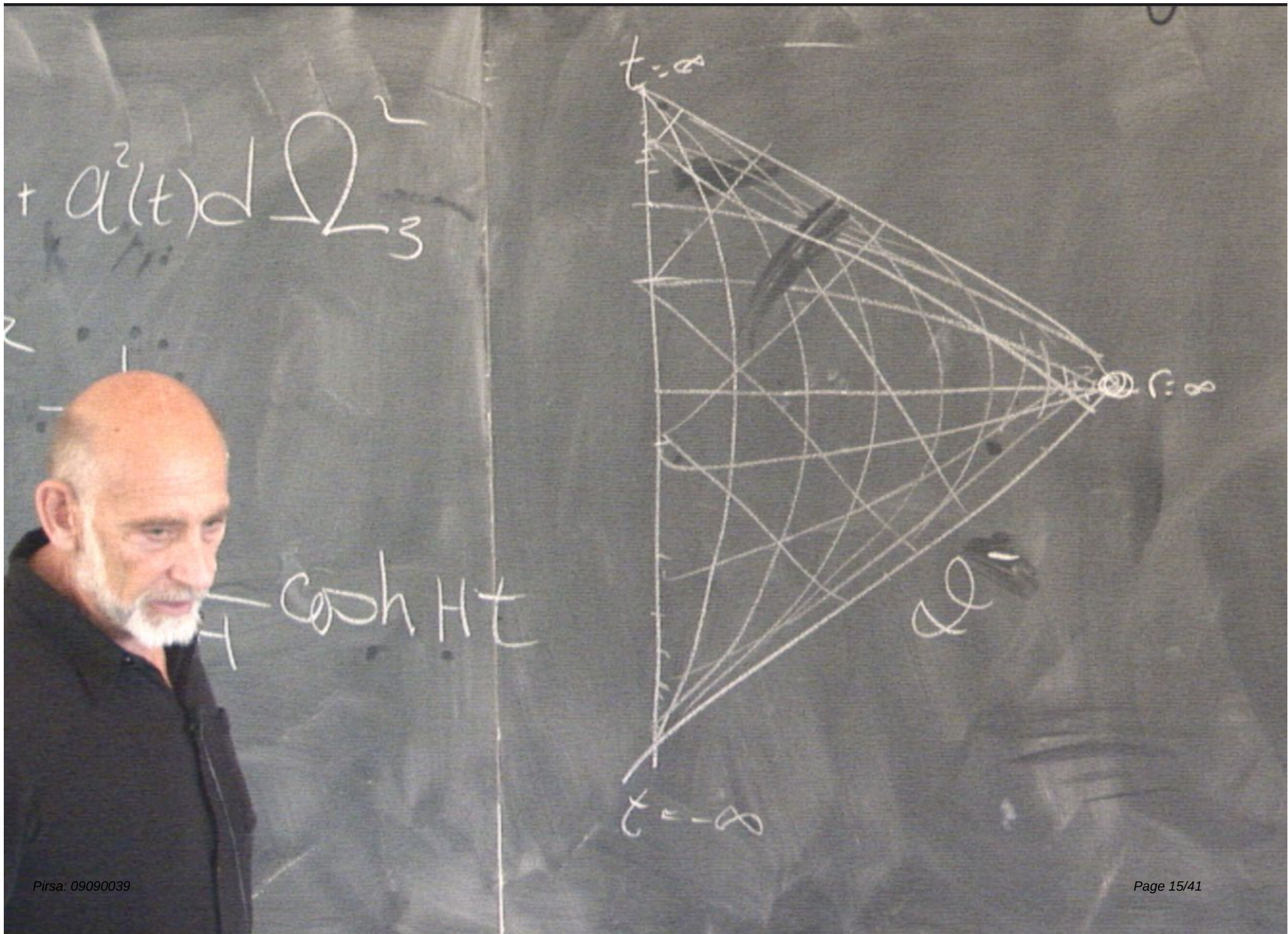
ash Ht





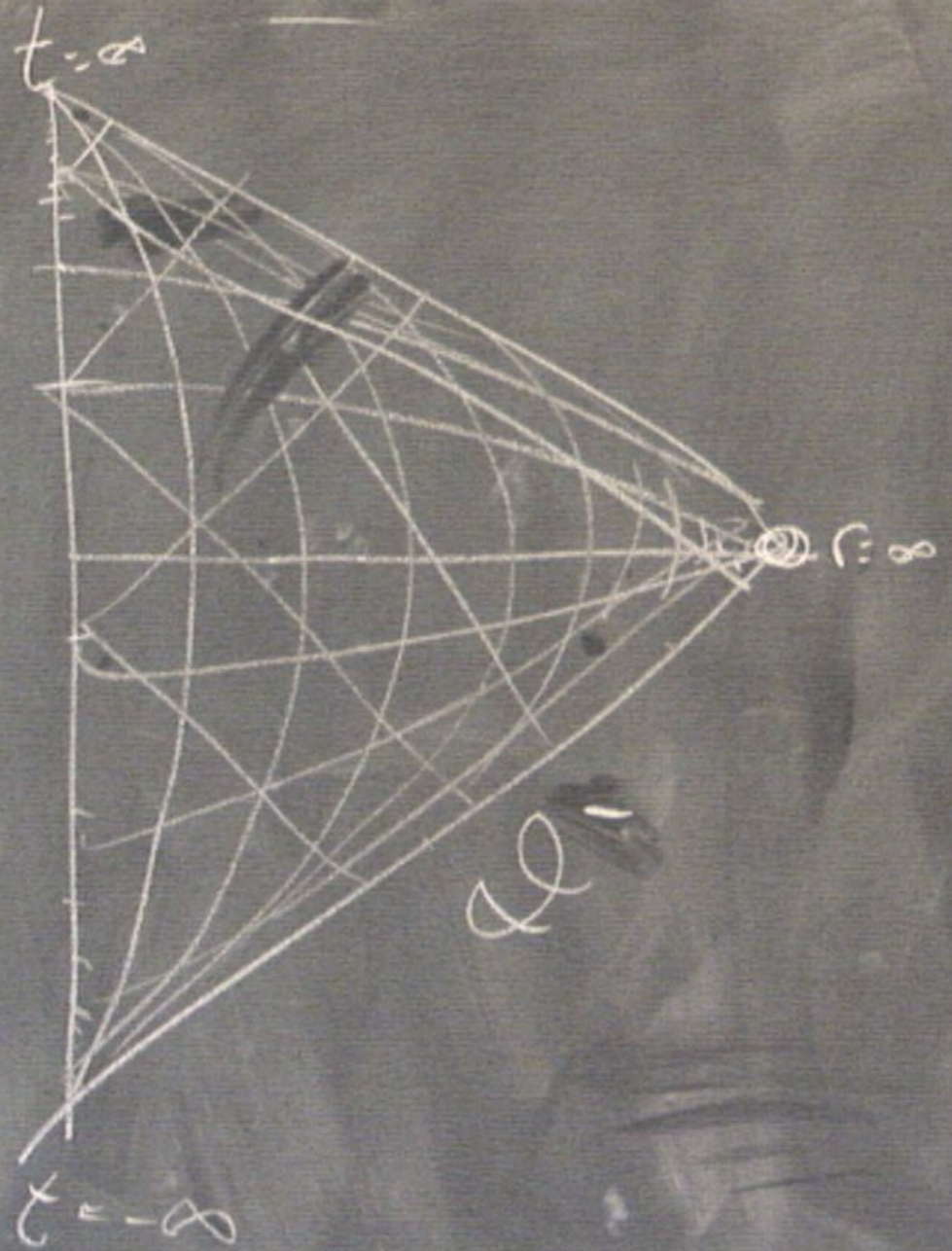


$t = -\infty$

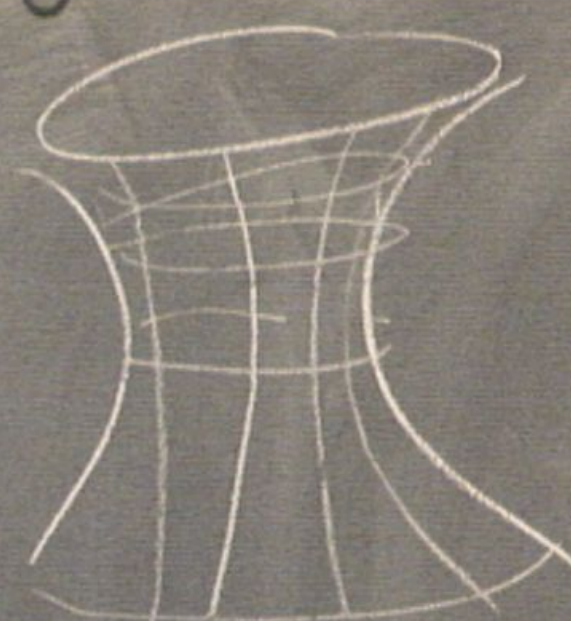


$$+ a^2(t) d\Omega_3^2$$

$$\cosh Ht$$

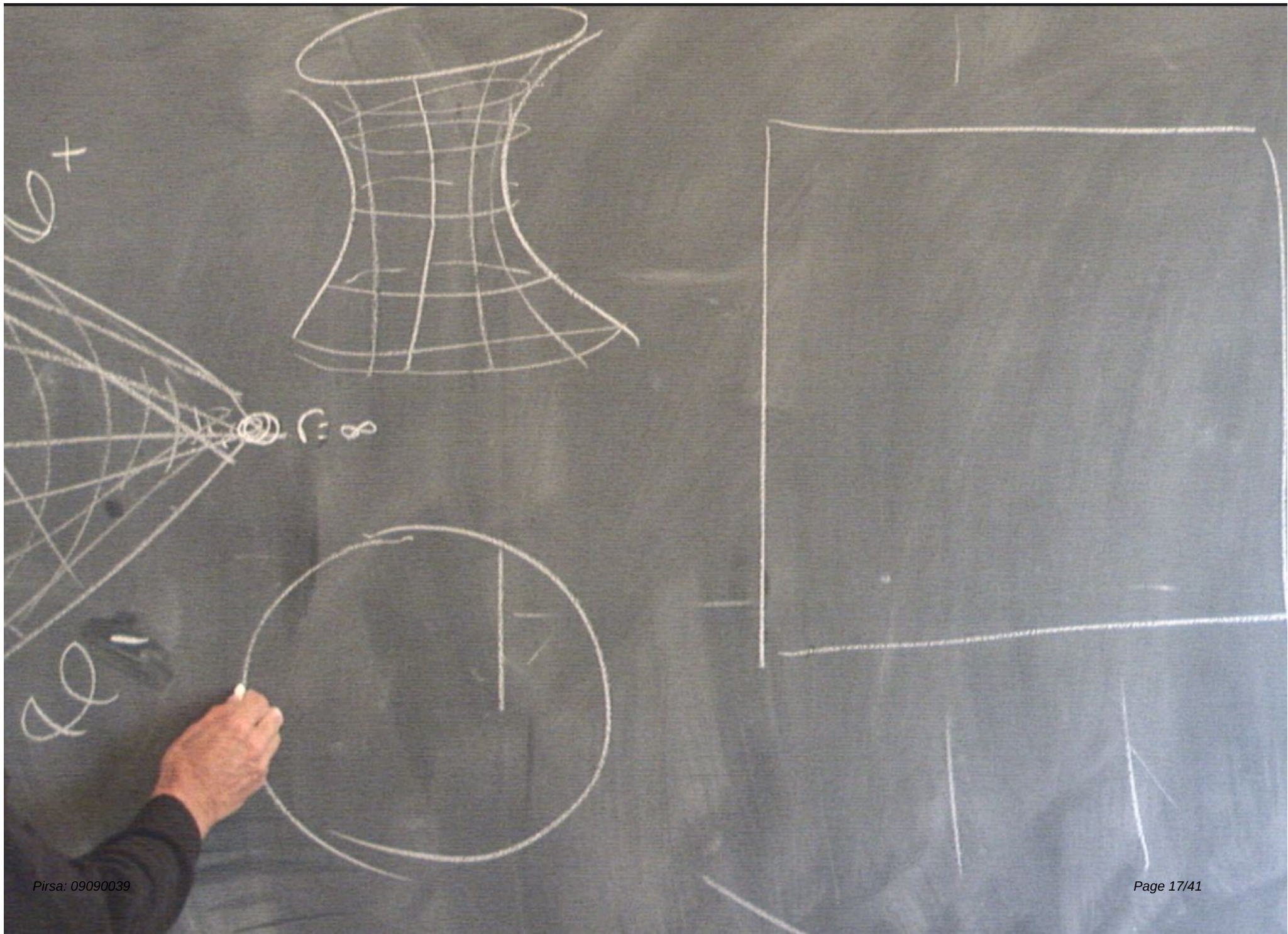


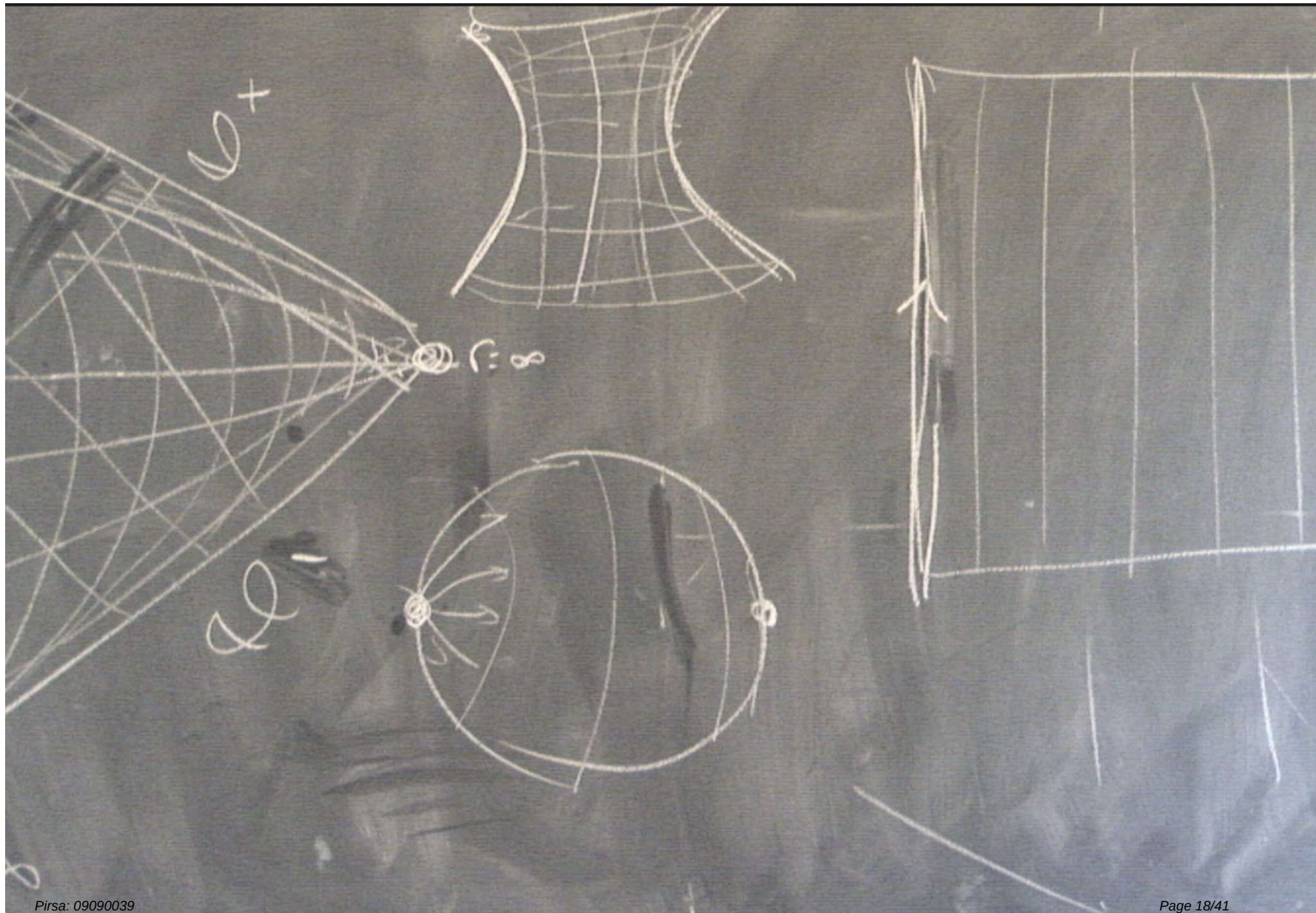
ℓ^+

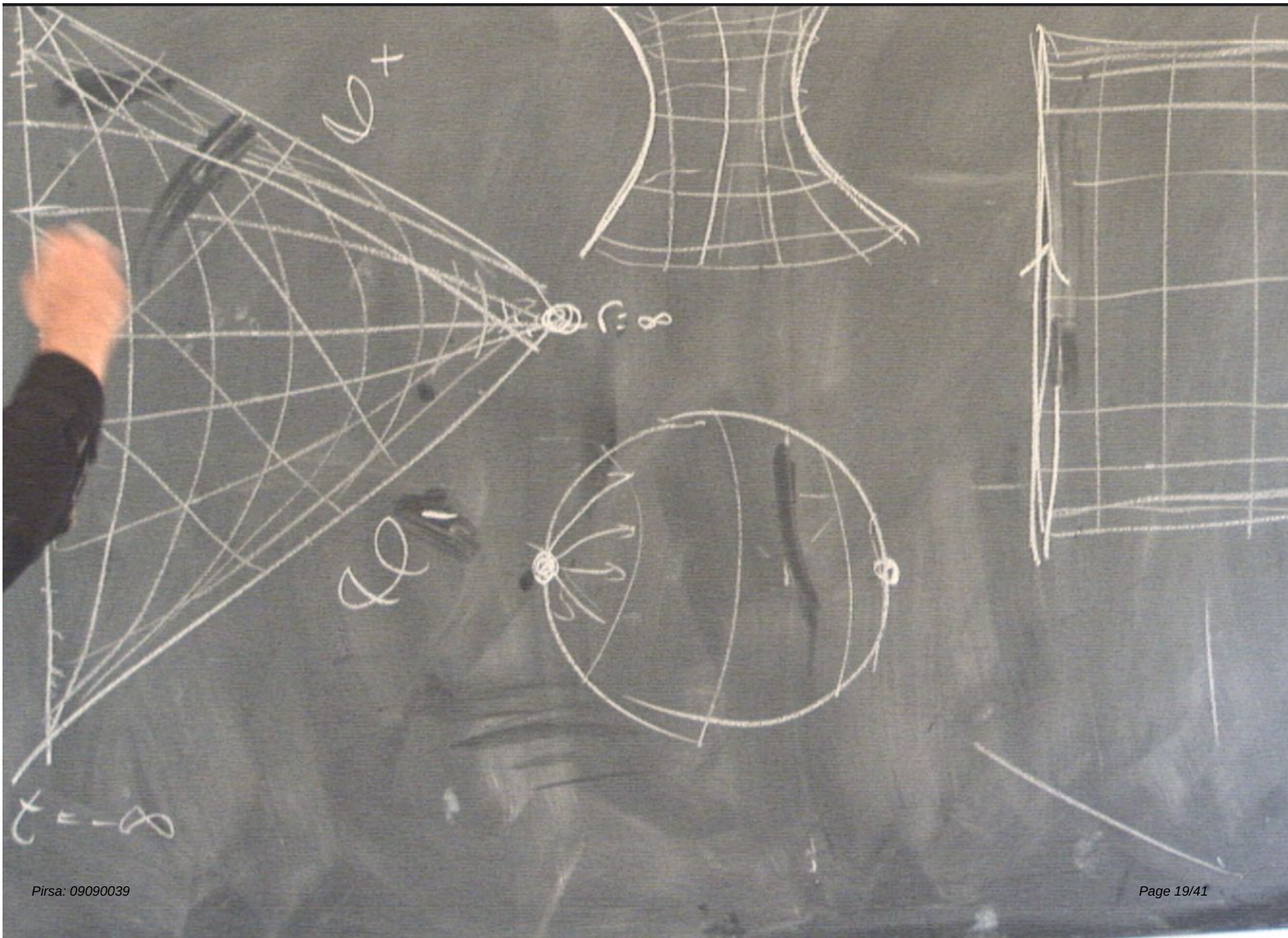


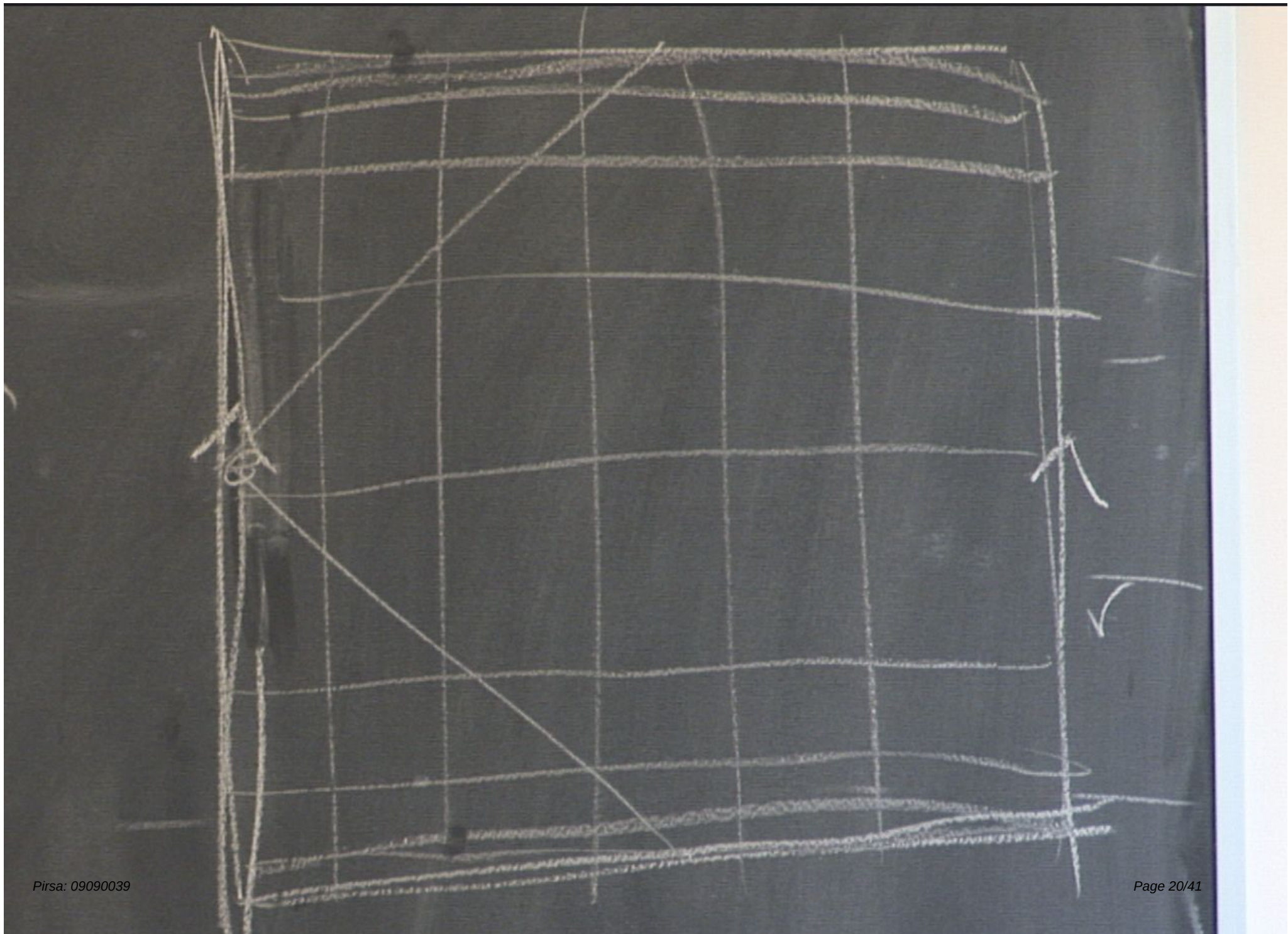
$\ell = \infty$

ℓ^-

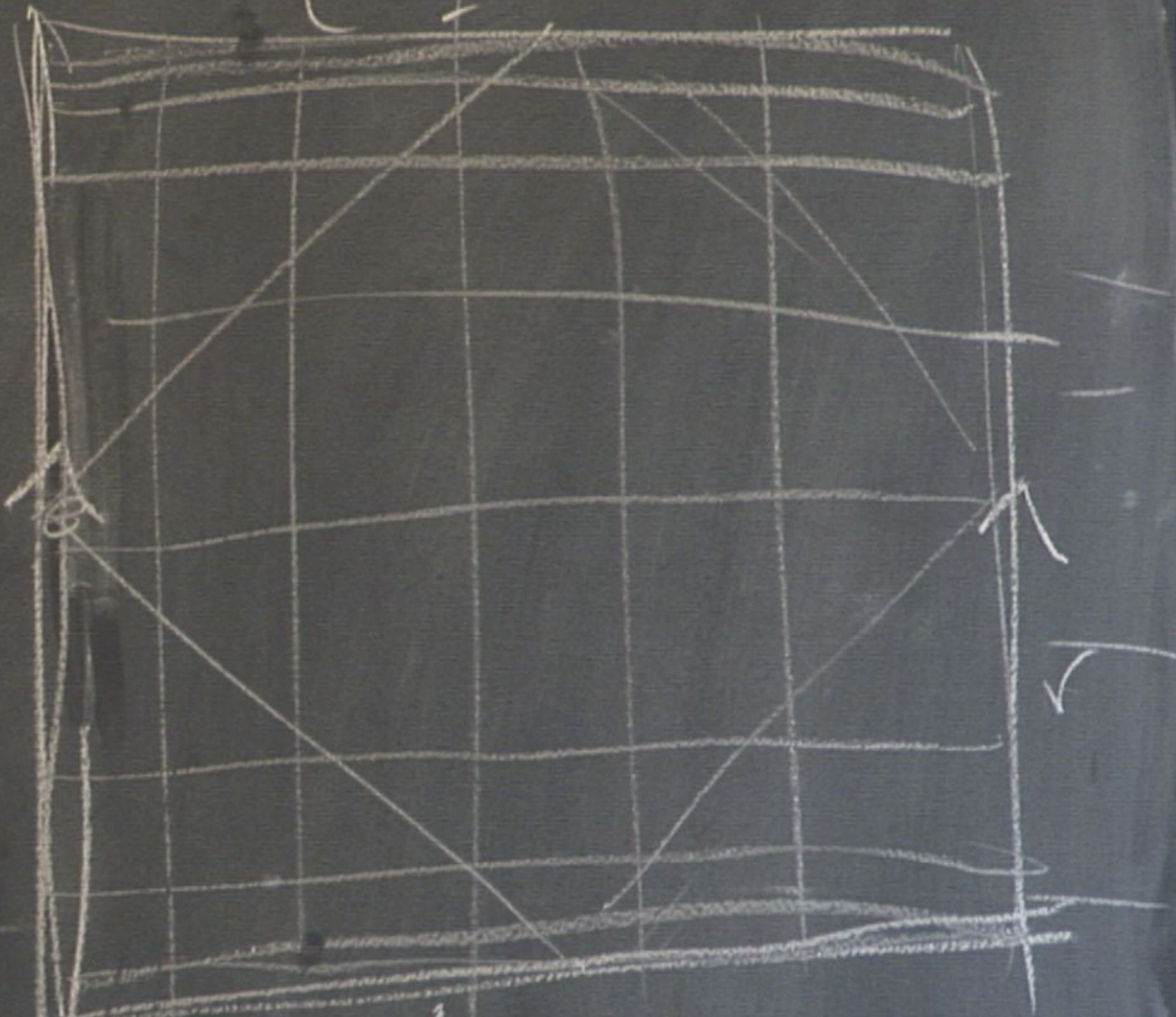






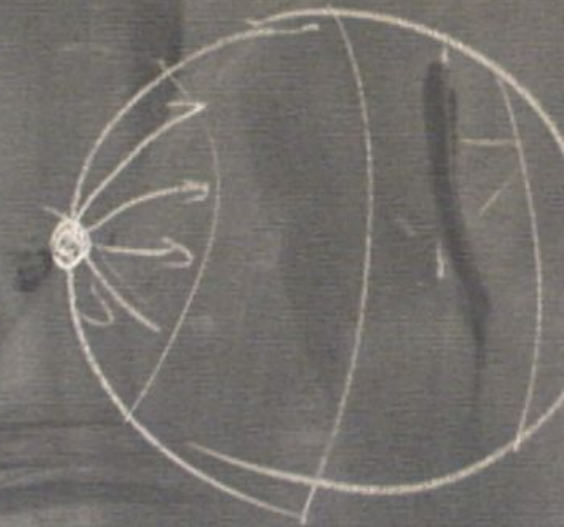
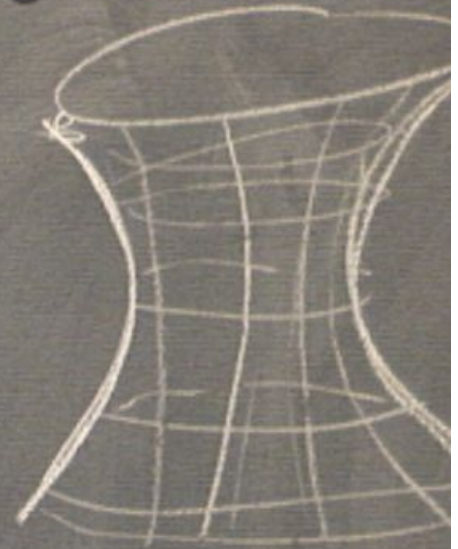
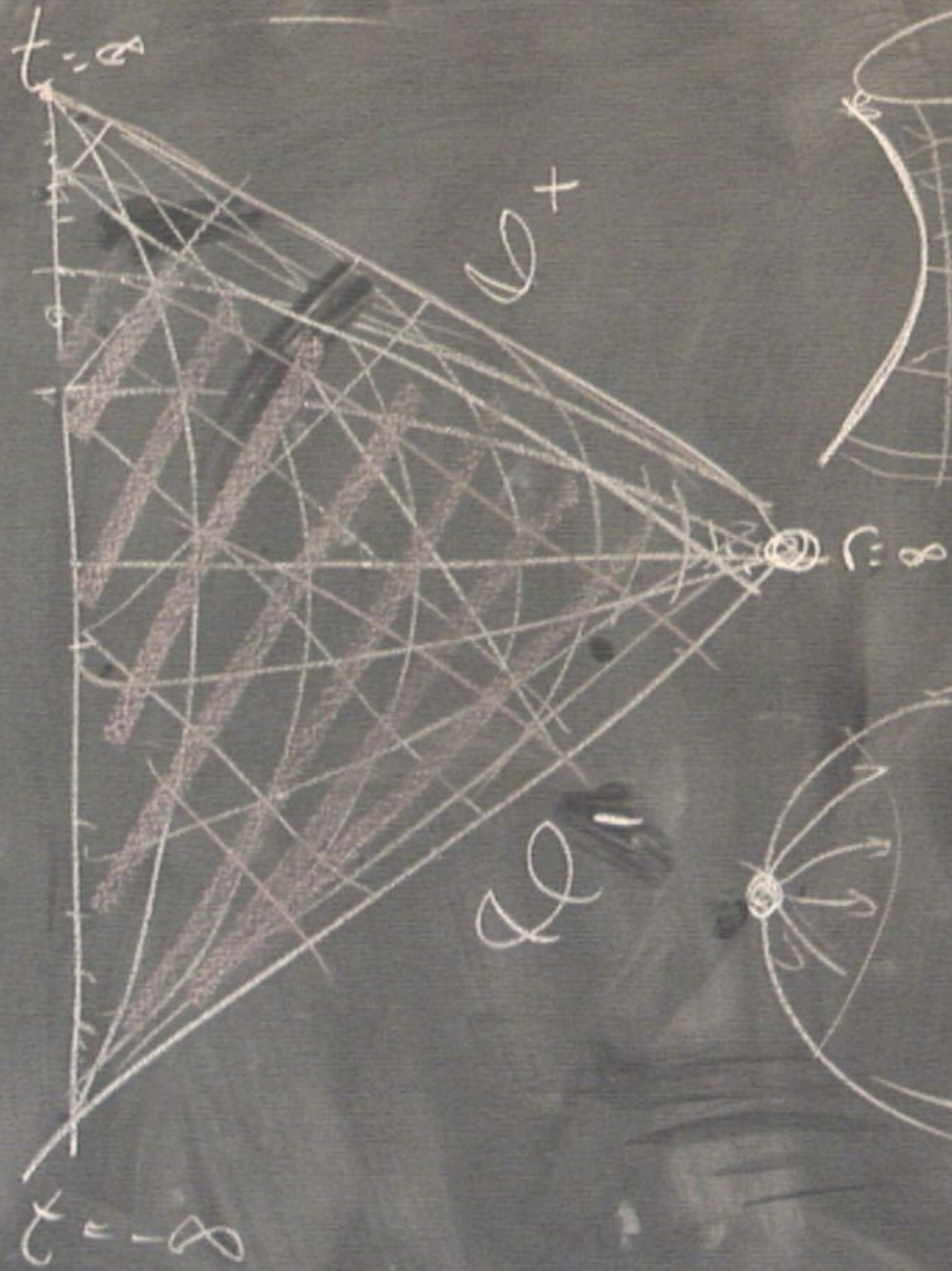


$$t = \infty$$



$$d\Omega_3$$

$$H \cosh Ht$$





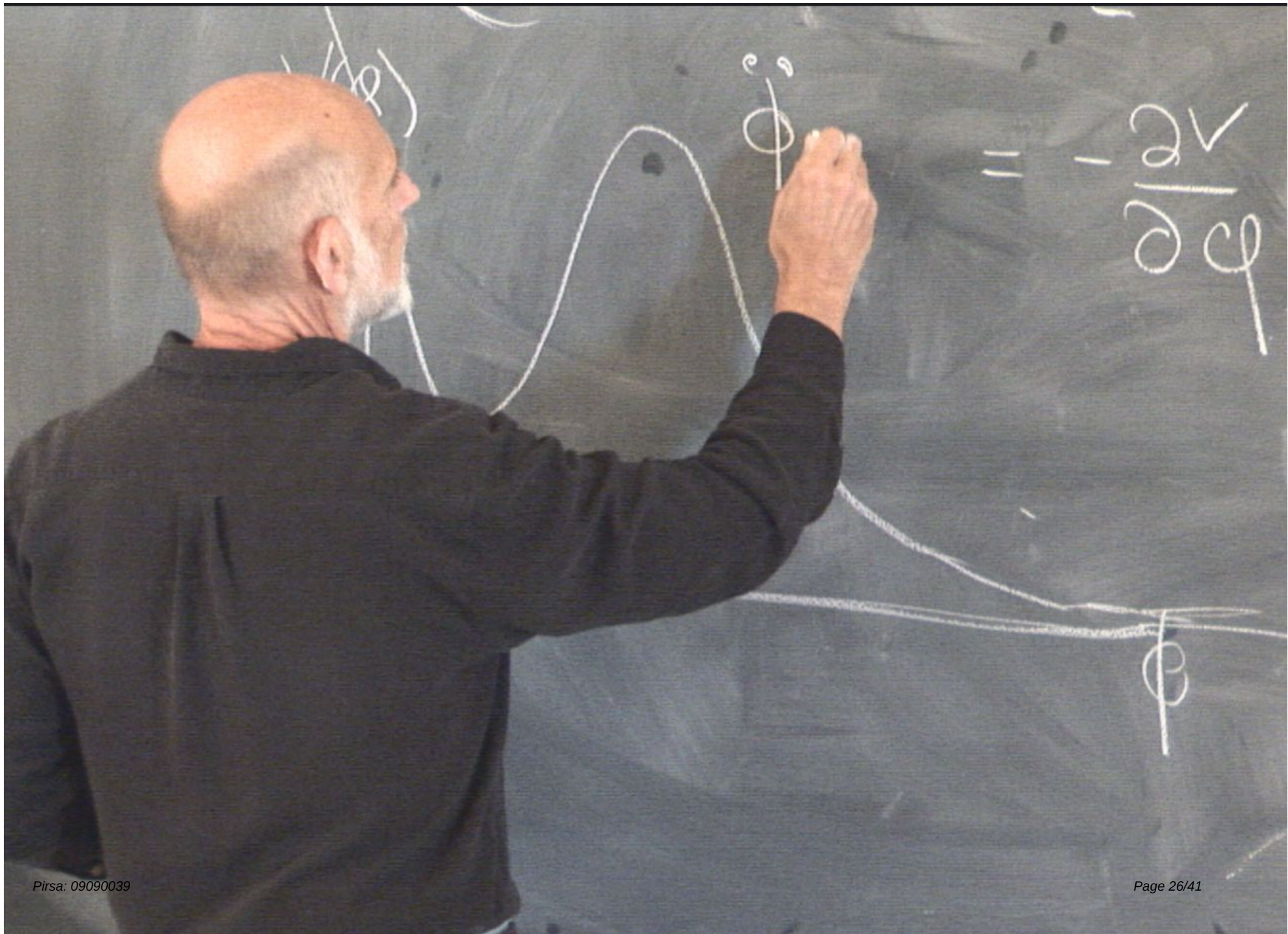
$$\left(\frac{\dot{a}}{a}\right)^2 = V(\phi) + \frac{\dot{\phi}^2}{2} - \frac{1}{a^2}$$

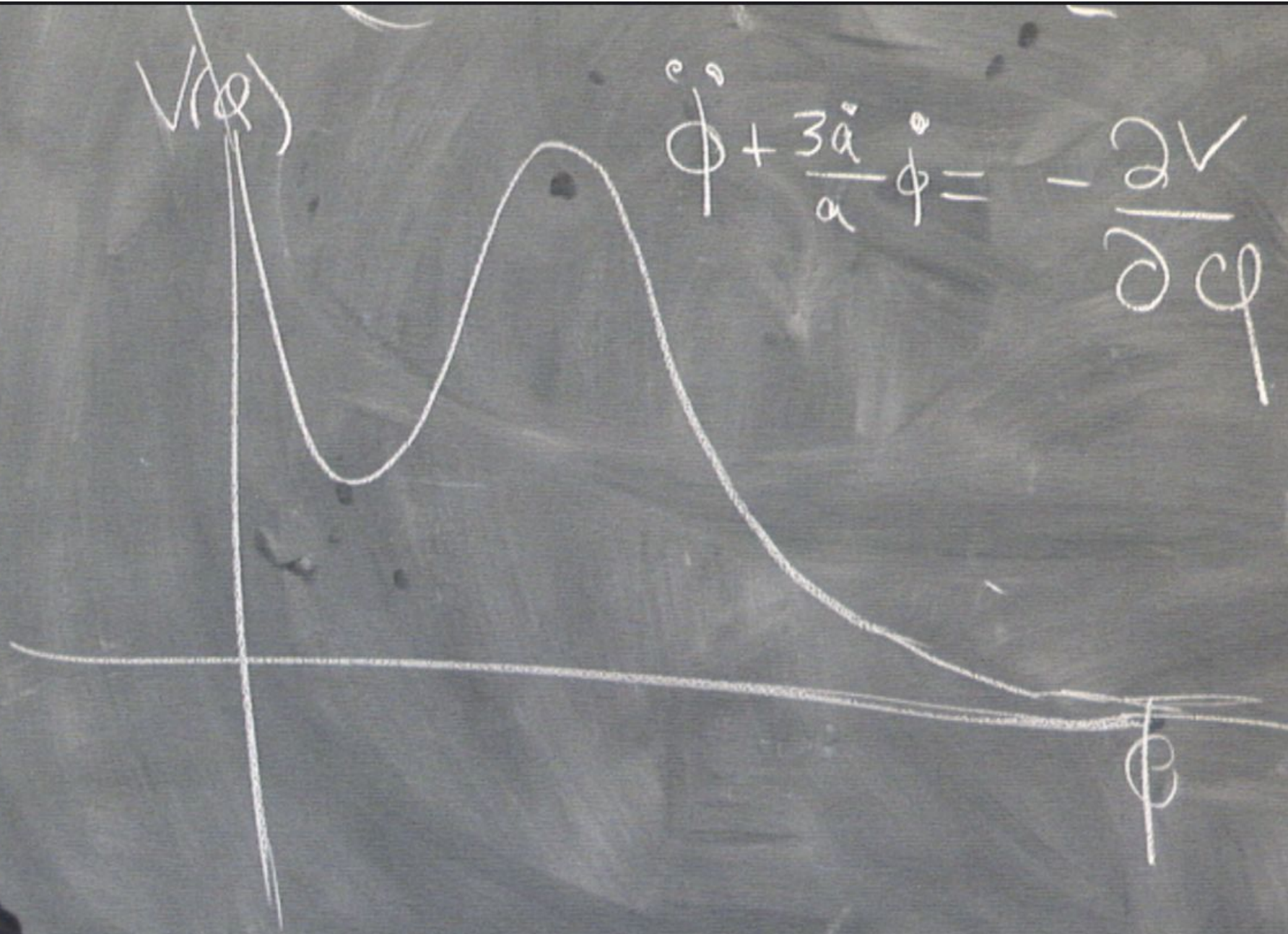


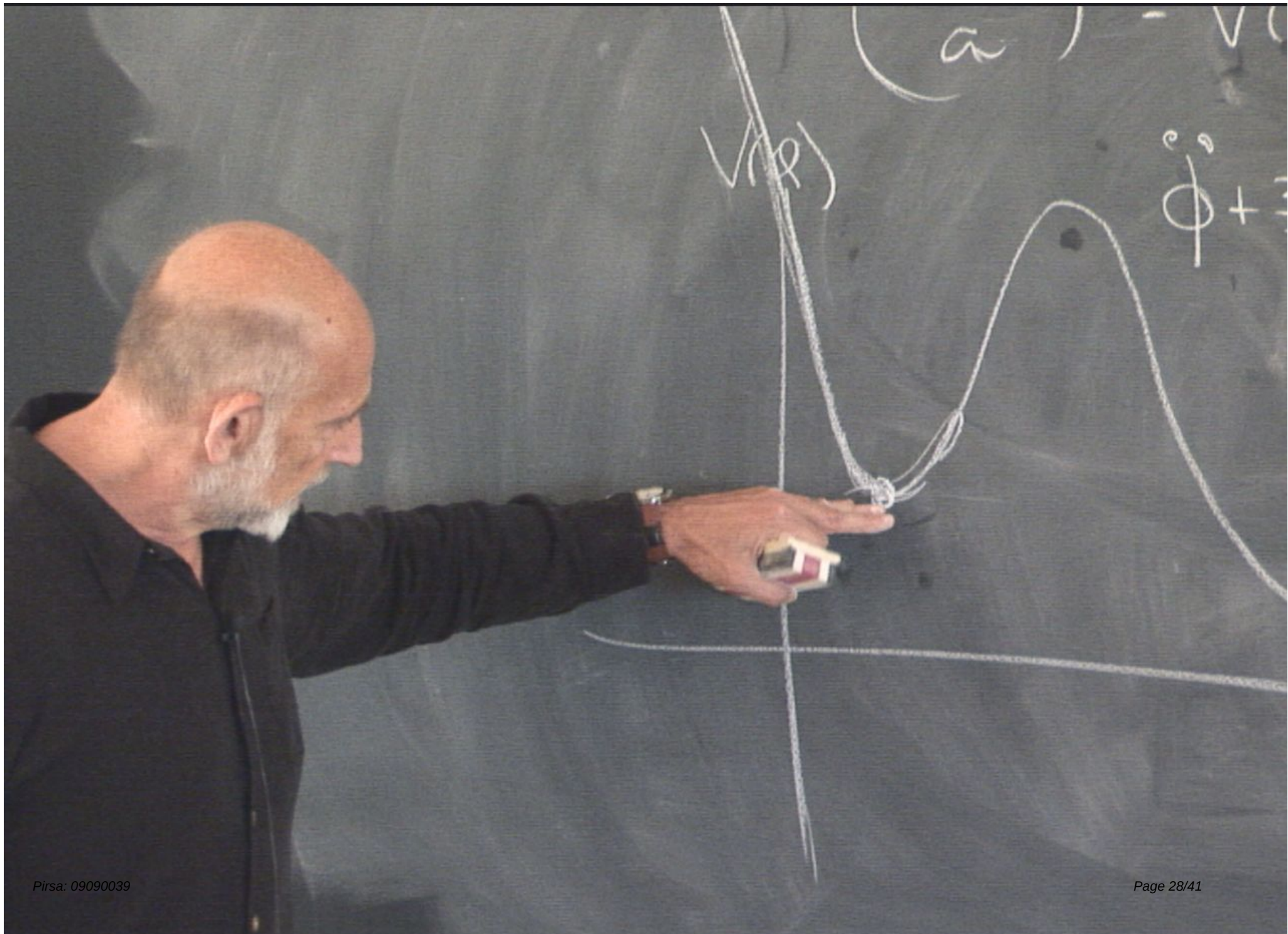
$V(\phi)$

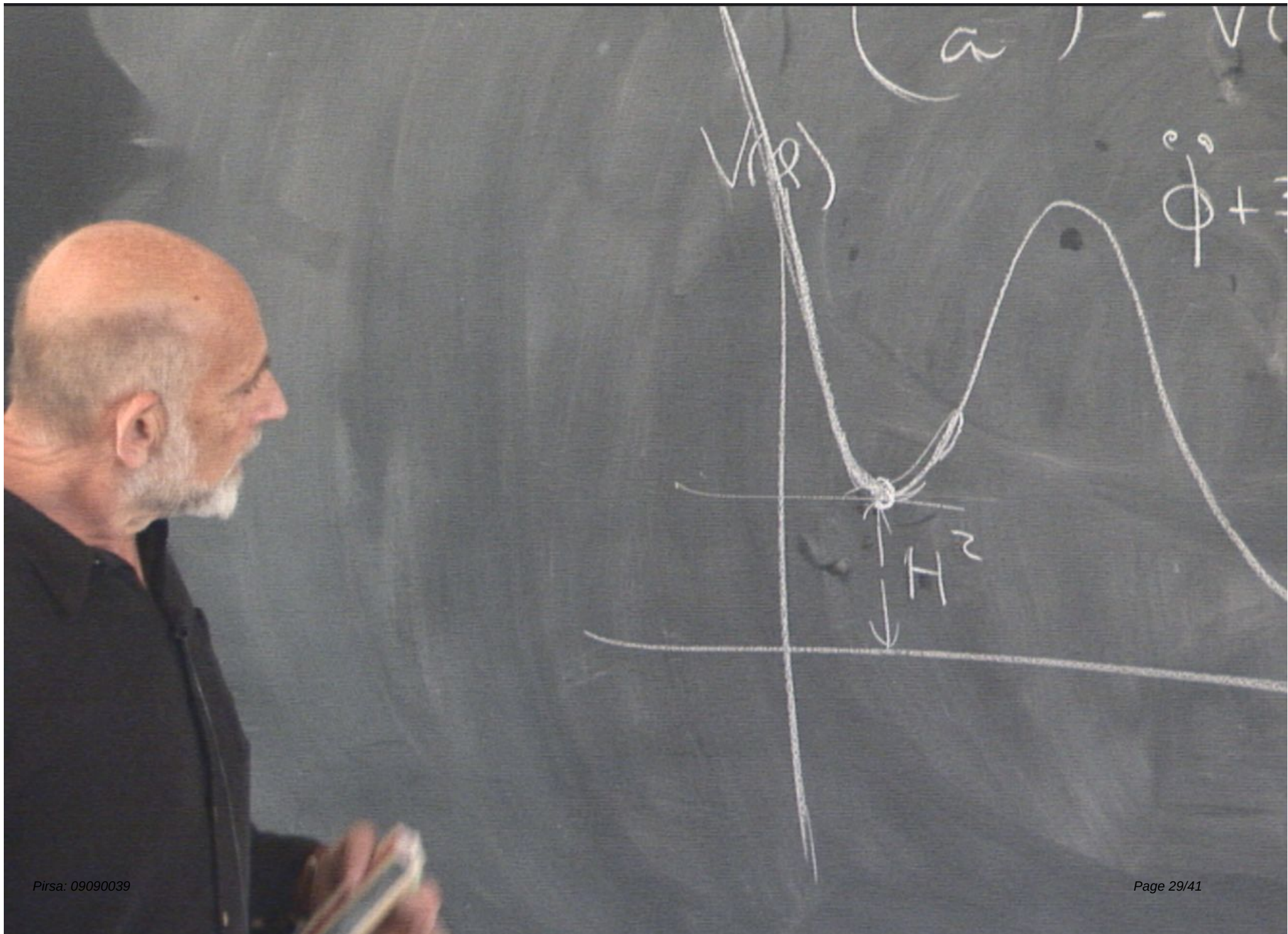
ϕ

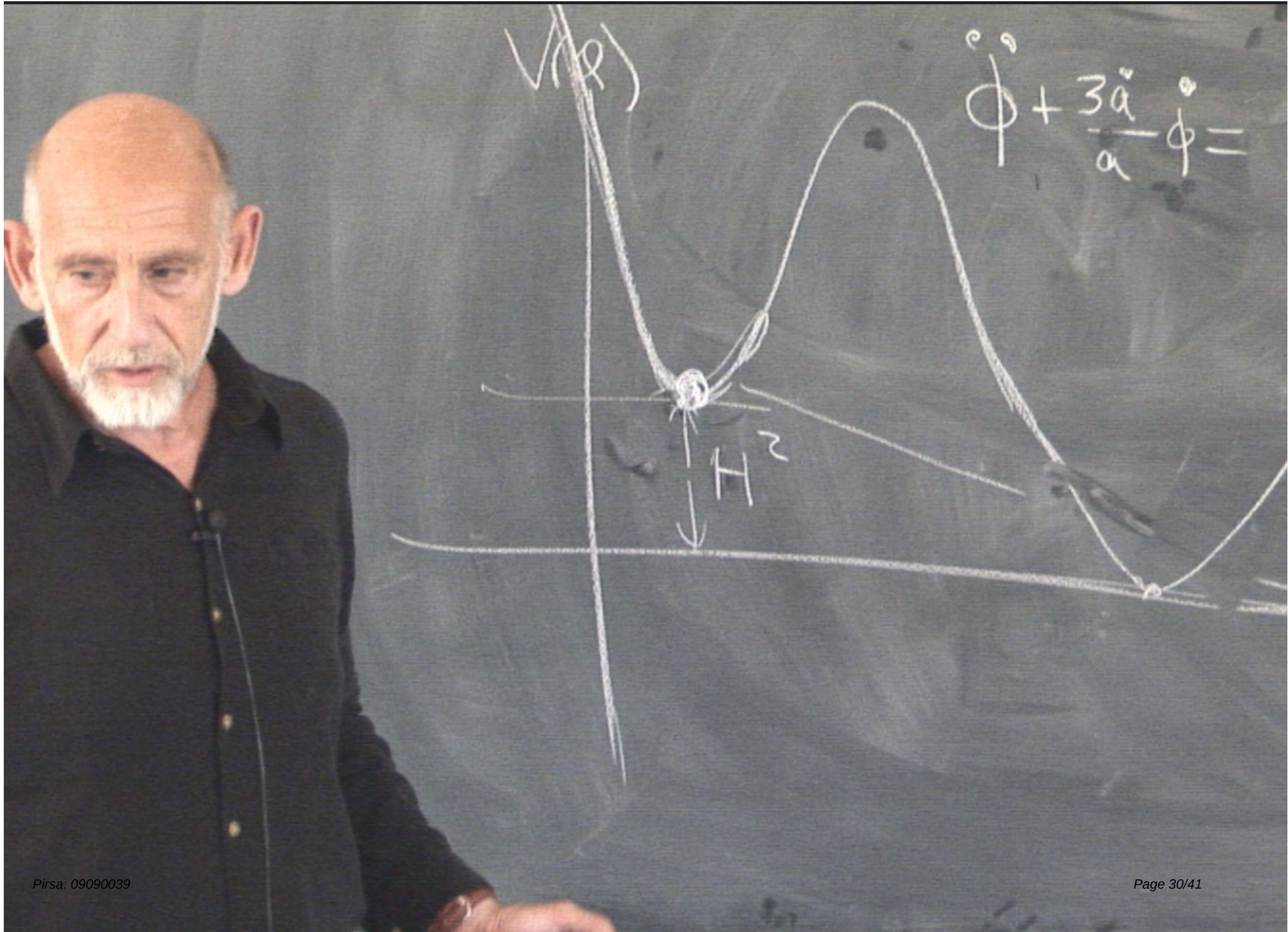
ϕ

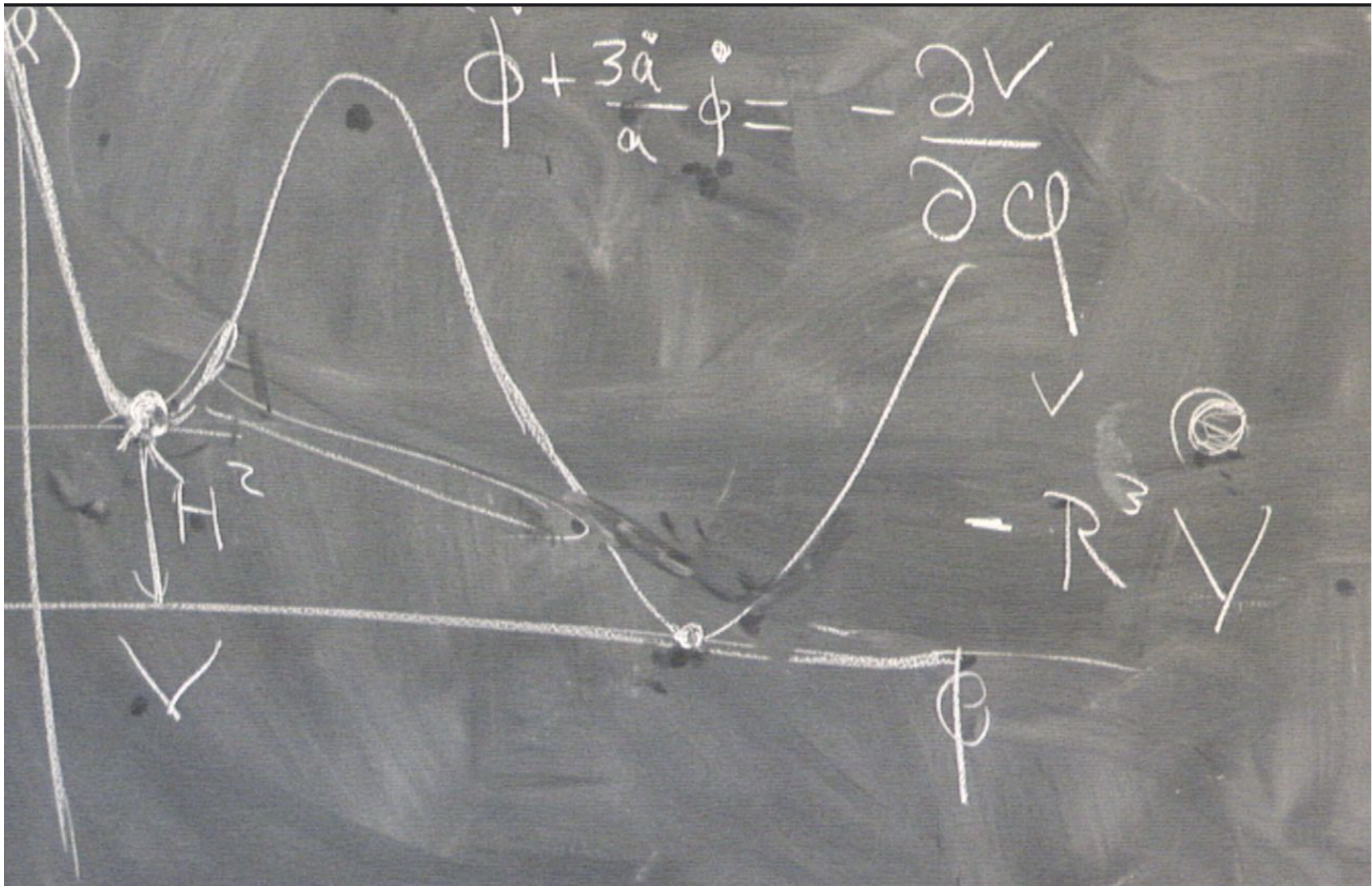




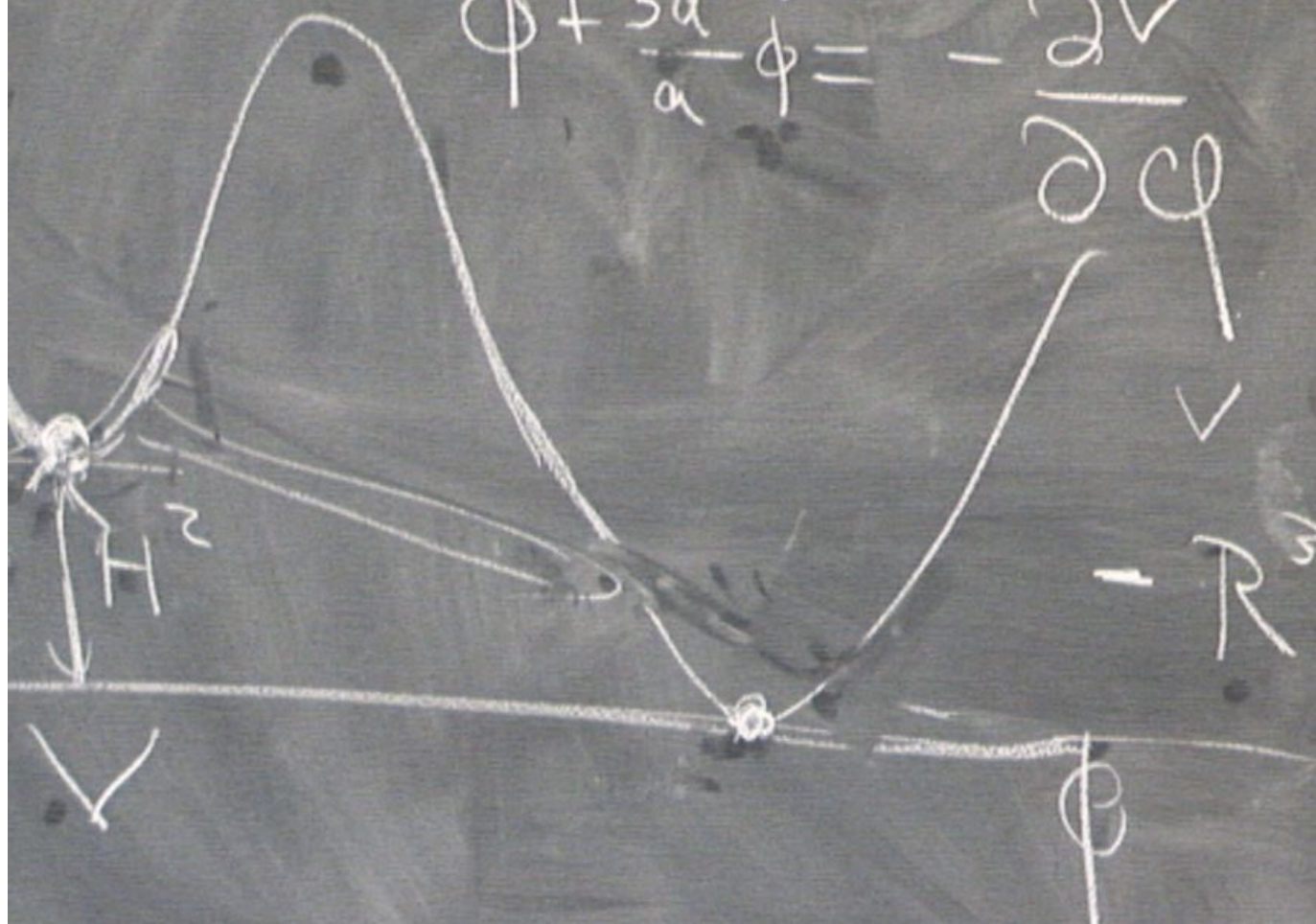


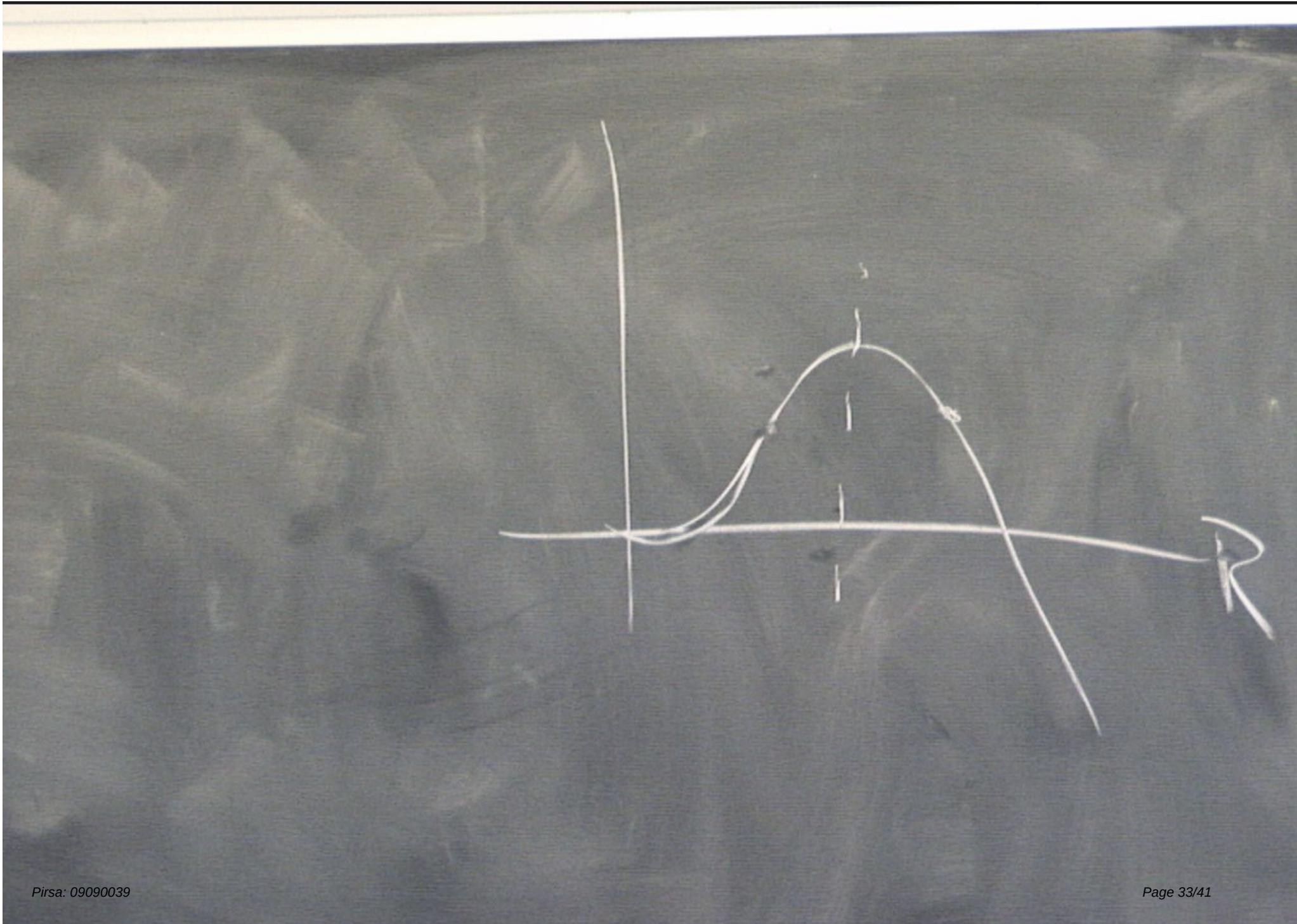


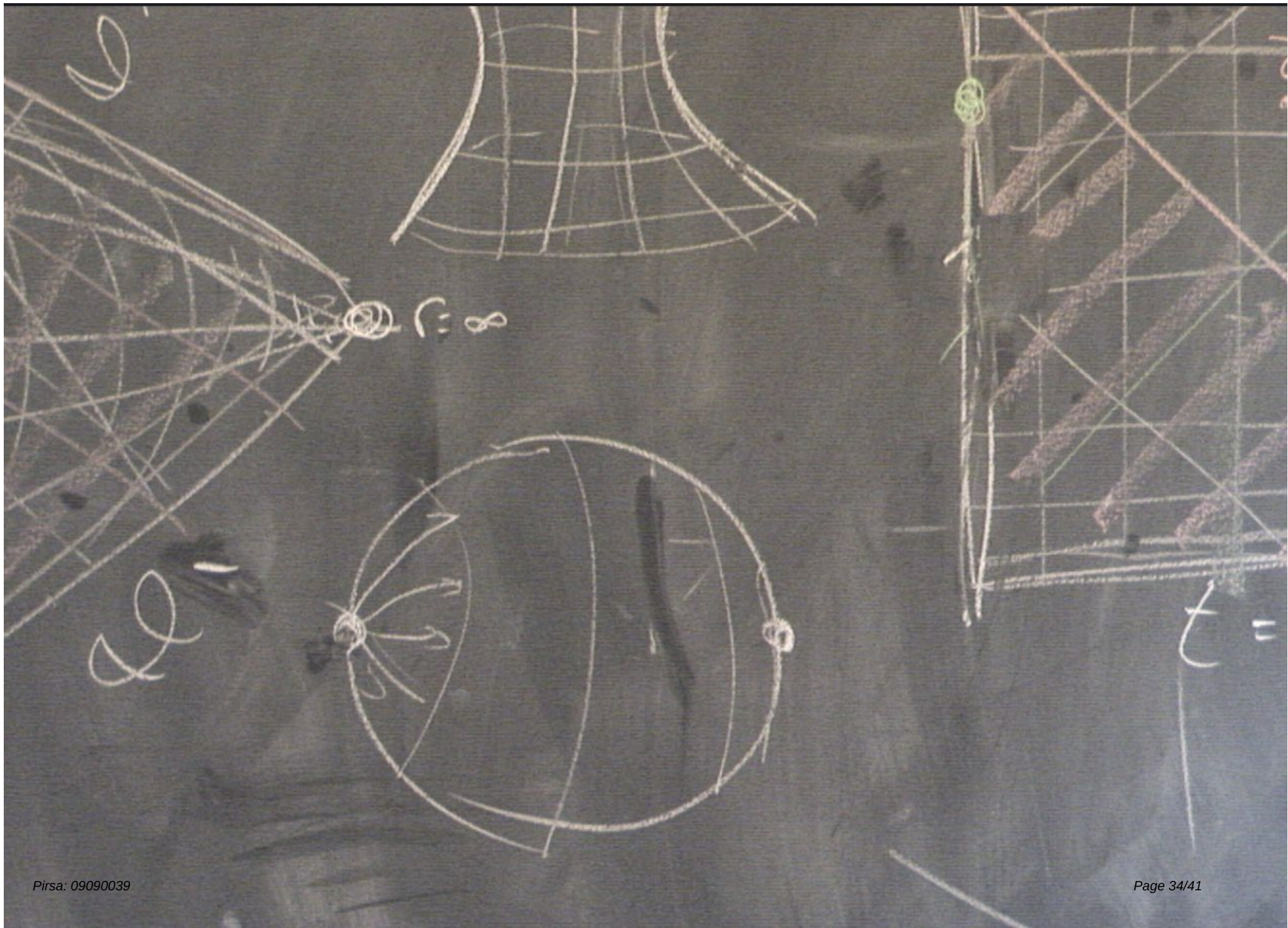


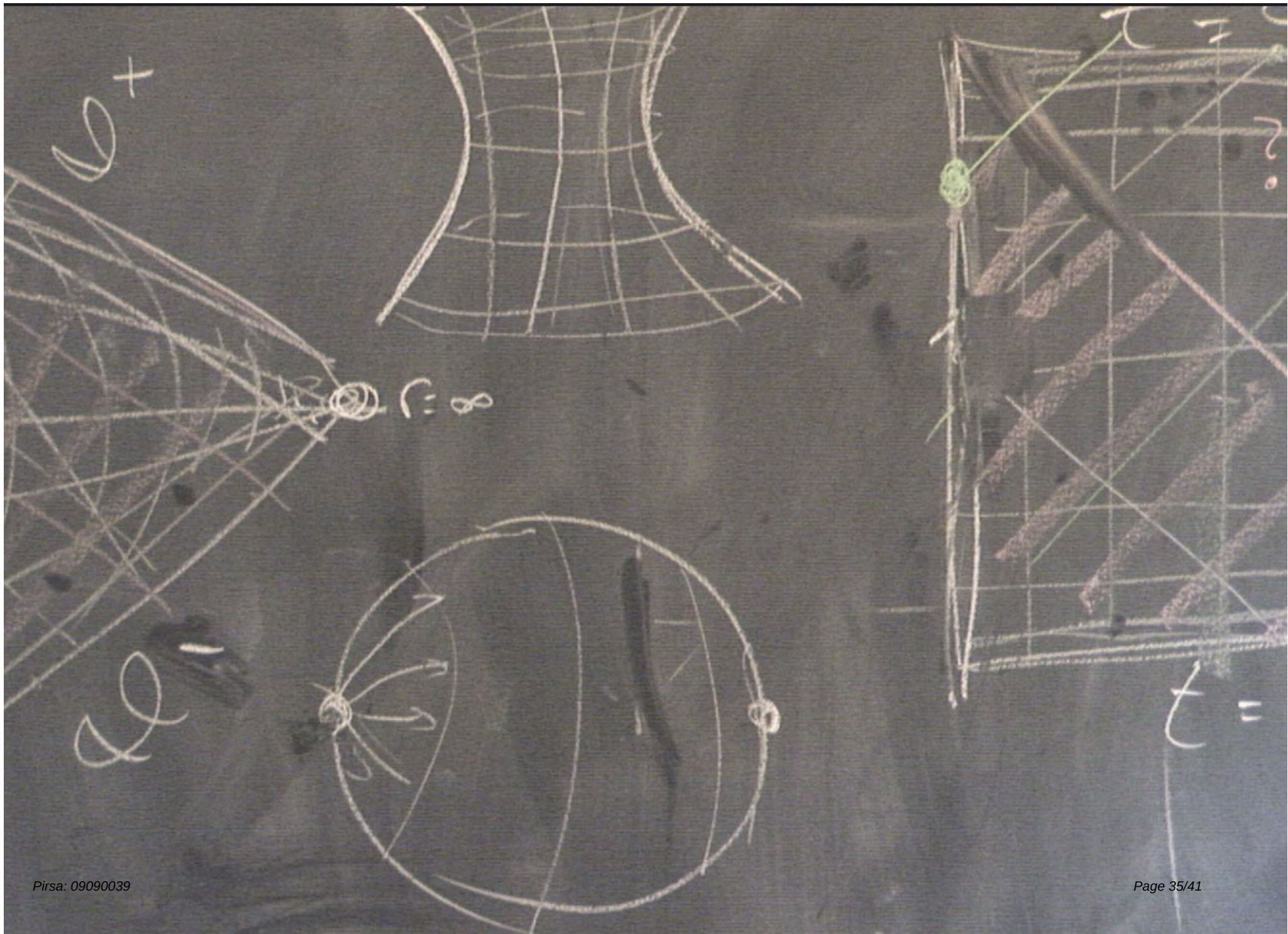


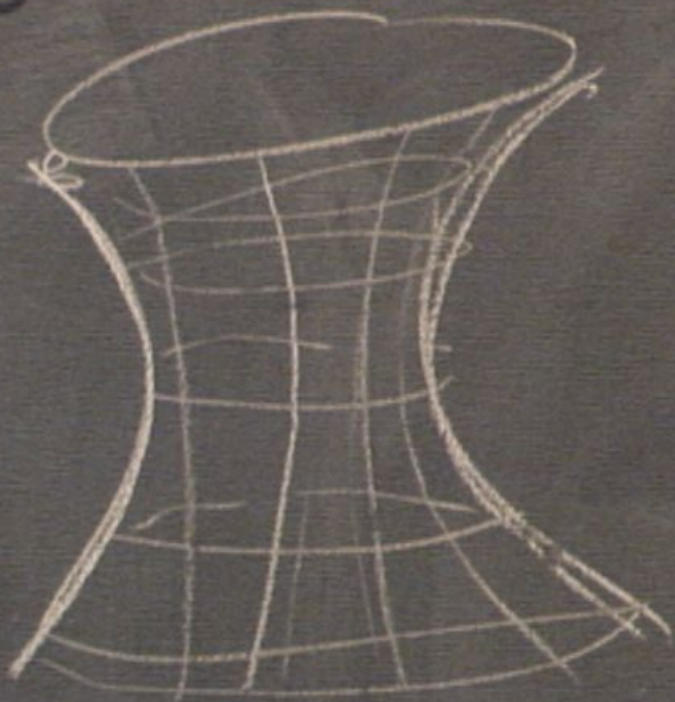
$$\ddot{\phi} + \frac{3\ddot{a}}{a}\dot{\phi} = -\frac{2V}{\partial\phi}$$



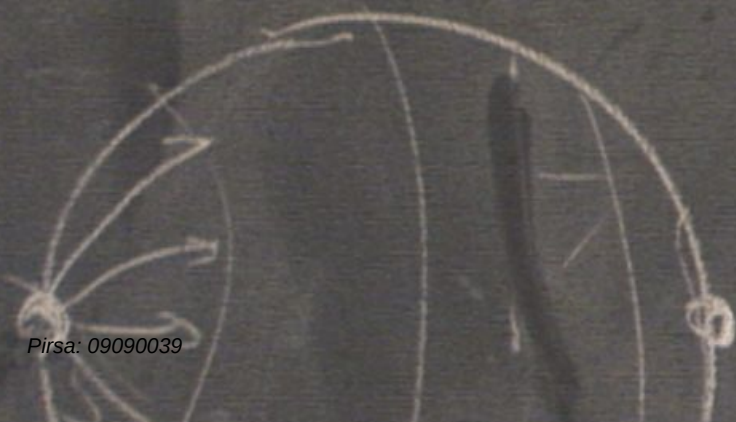




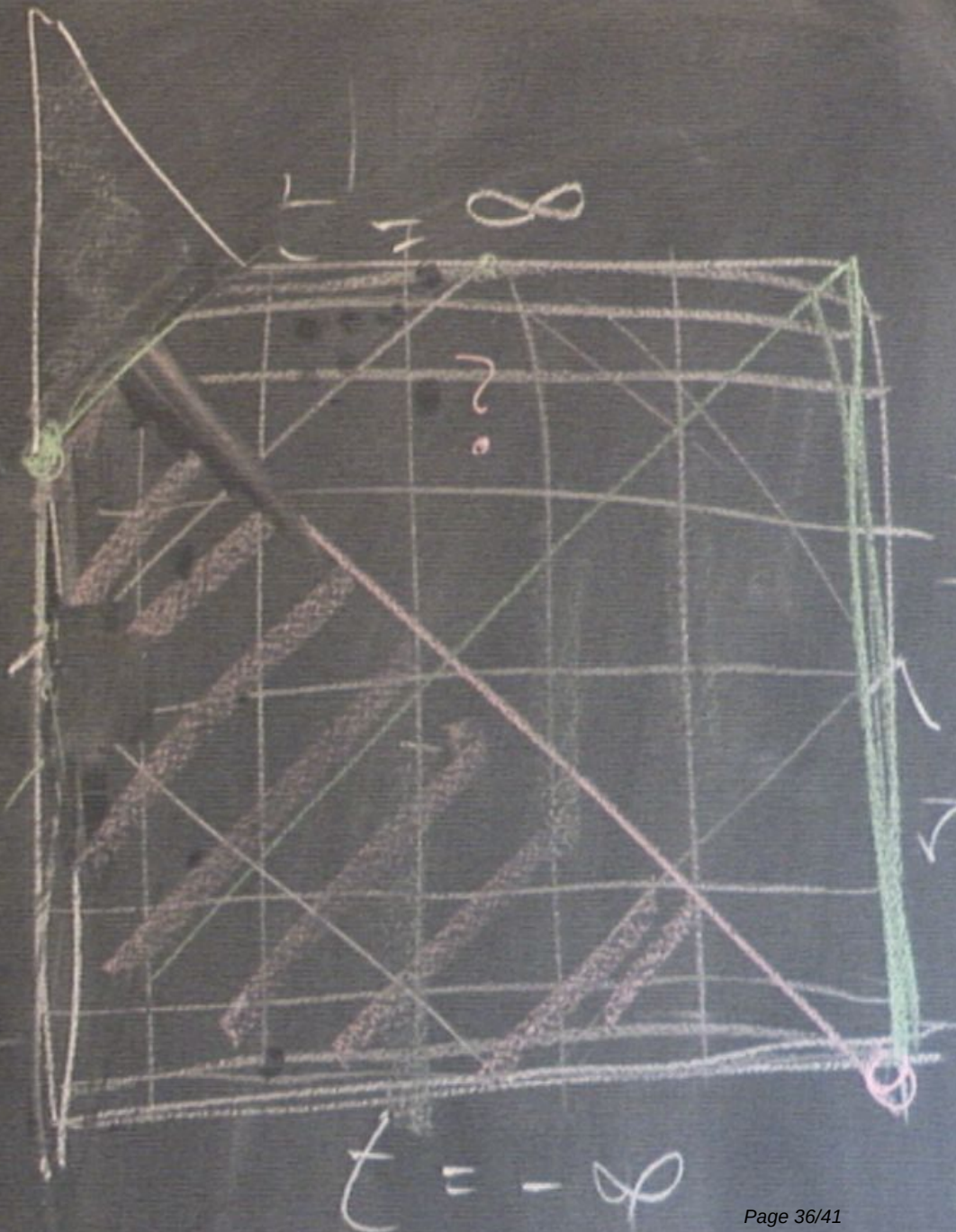


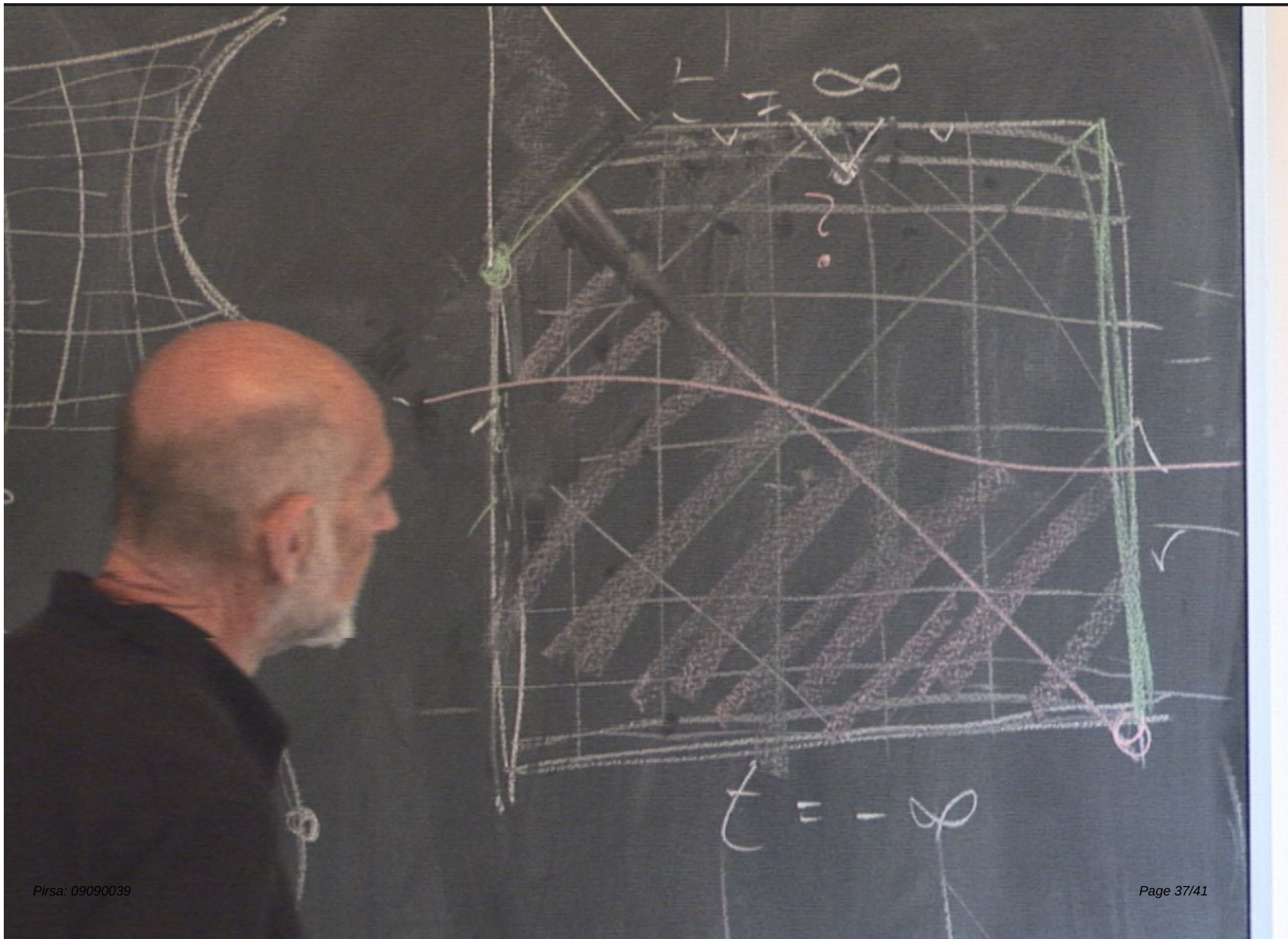


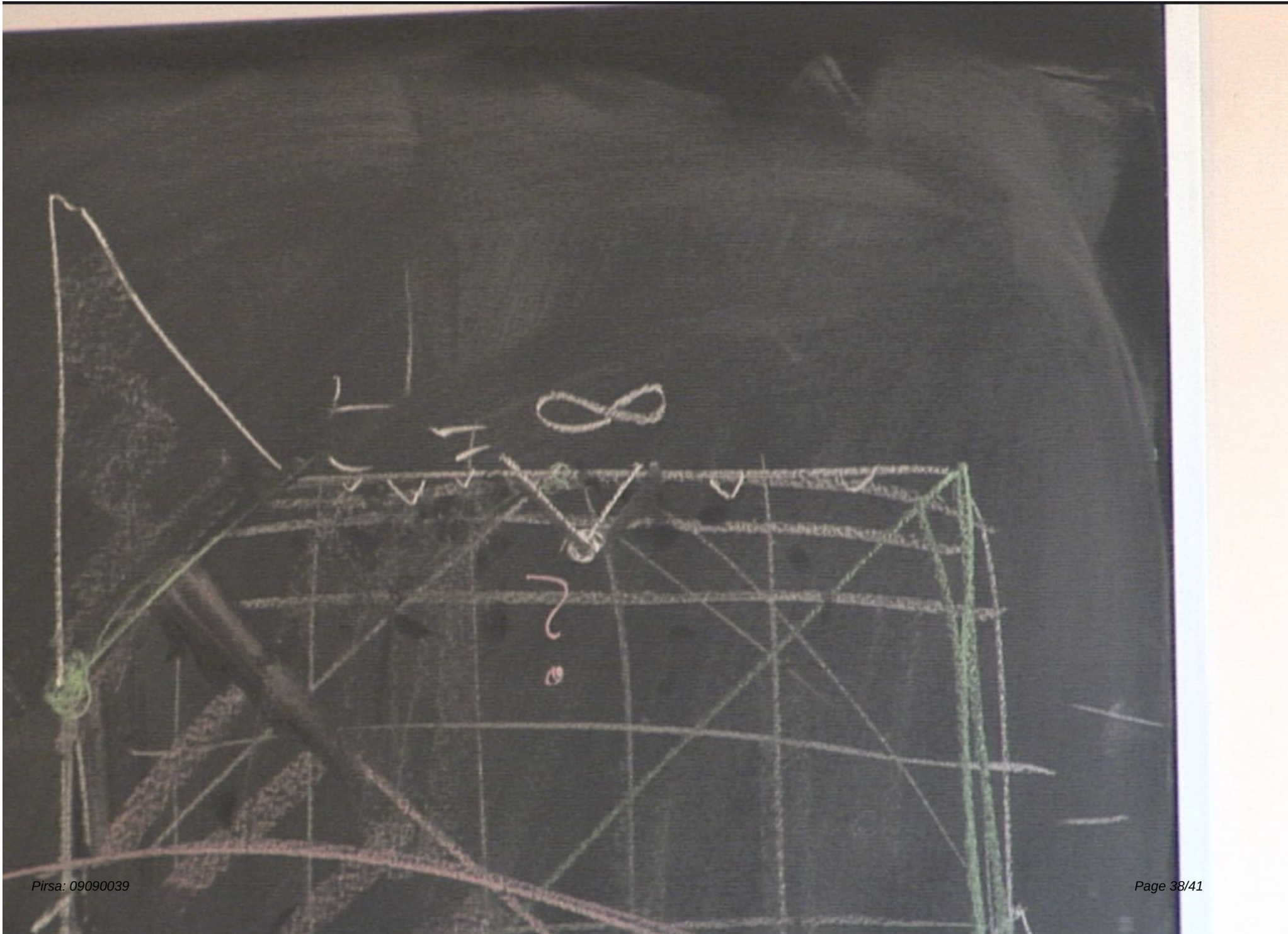
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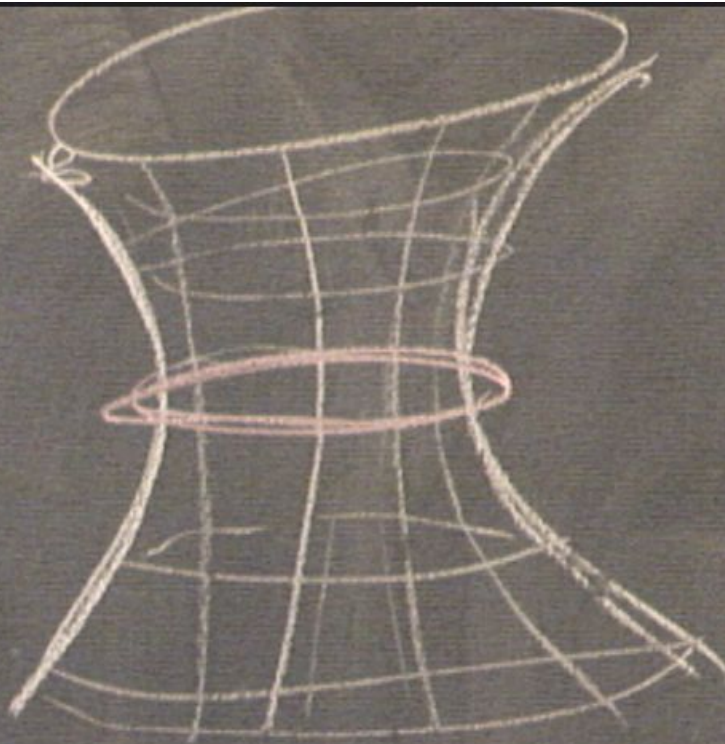


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