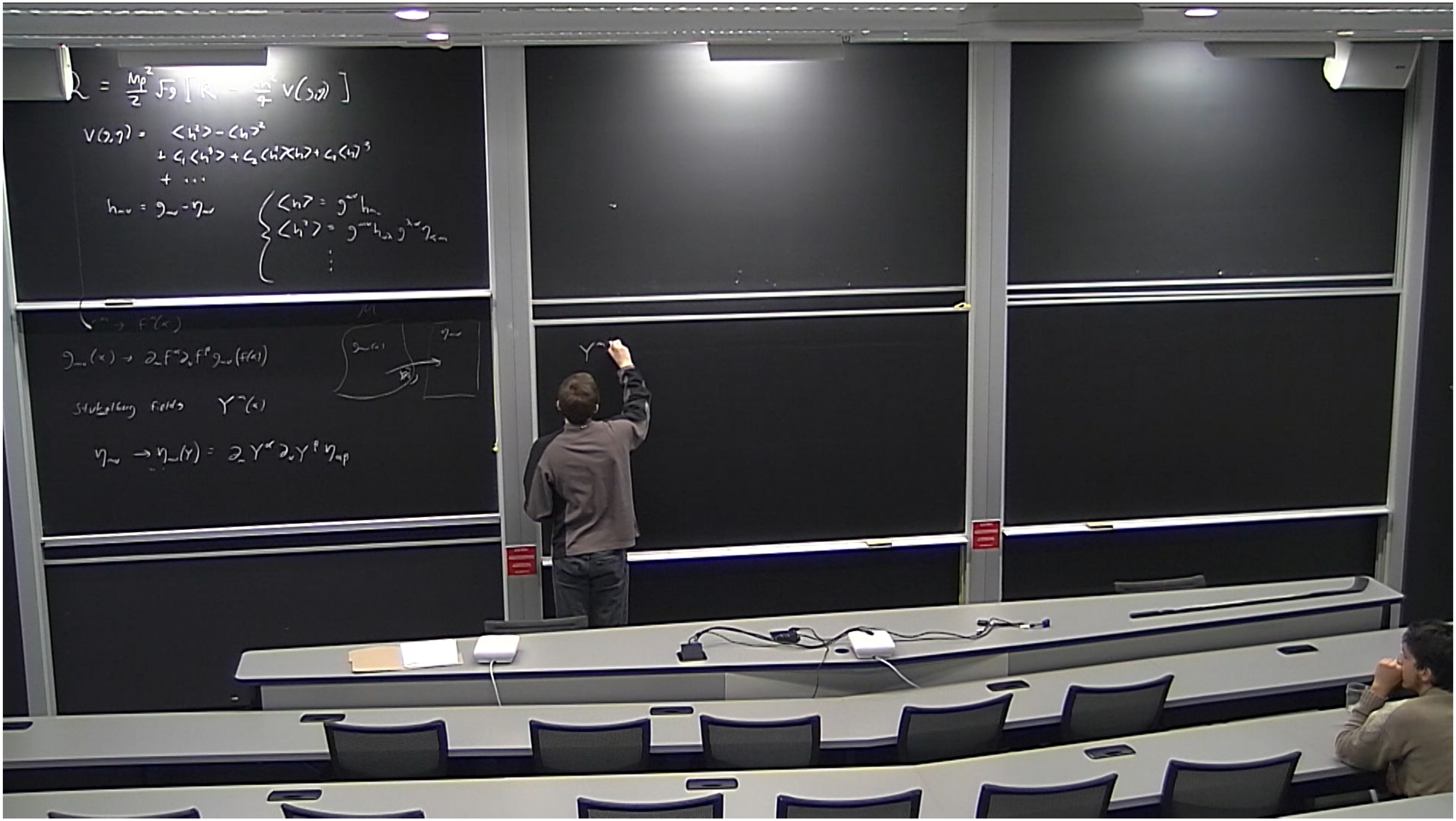
Title: Kurt Hinterbichler's fourth massive gravity lecture

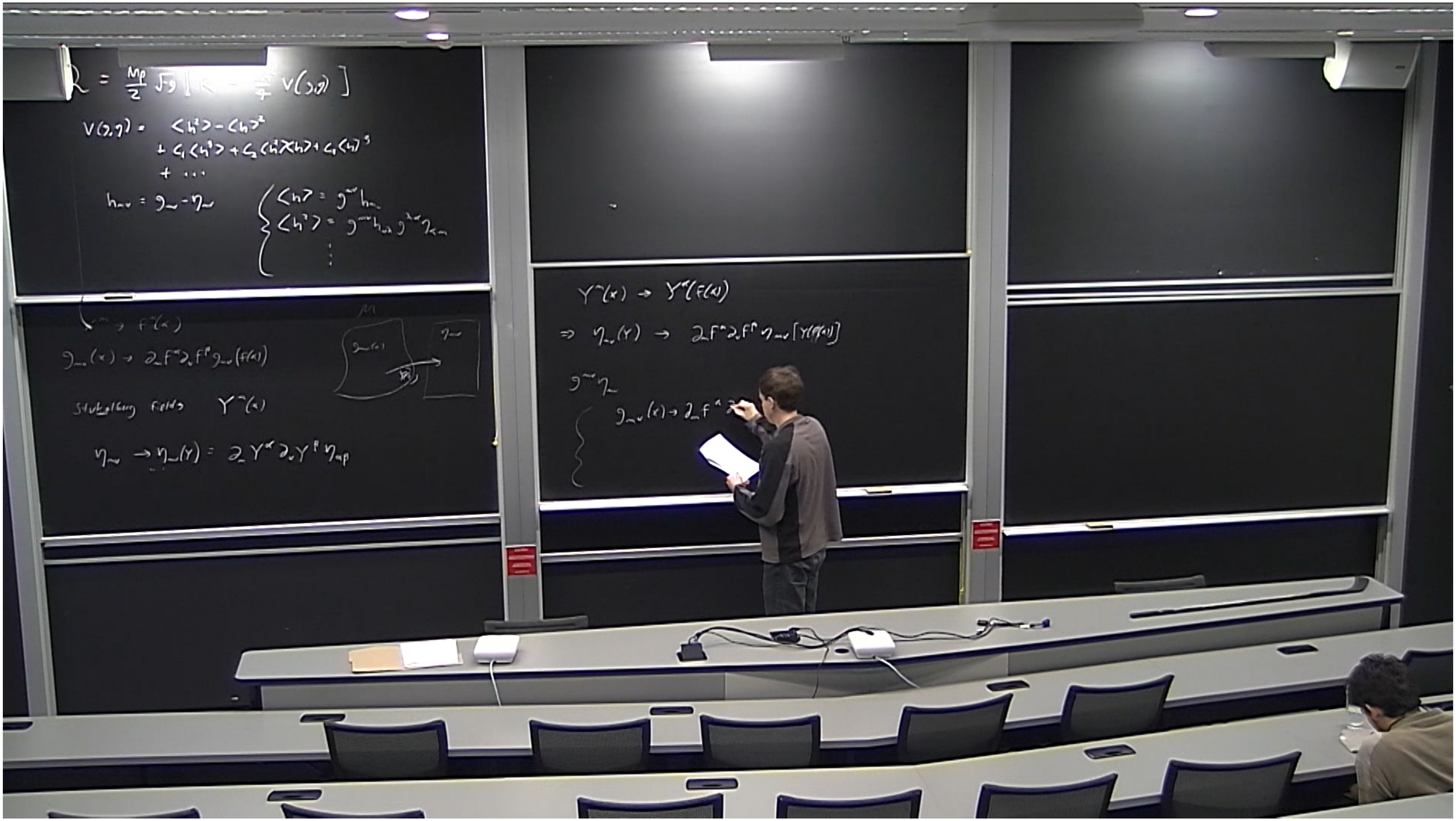
Date: Mar 27, 2015 04:00 PM

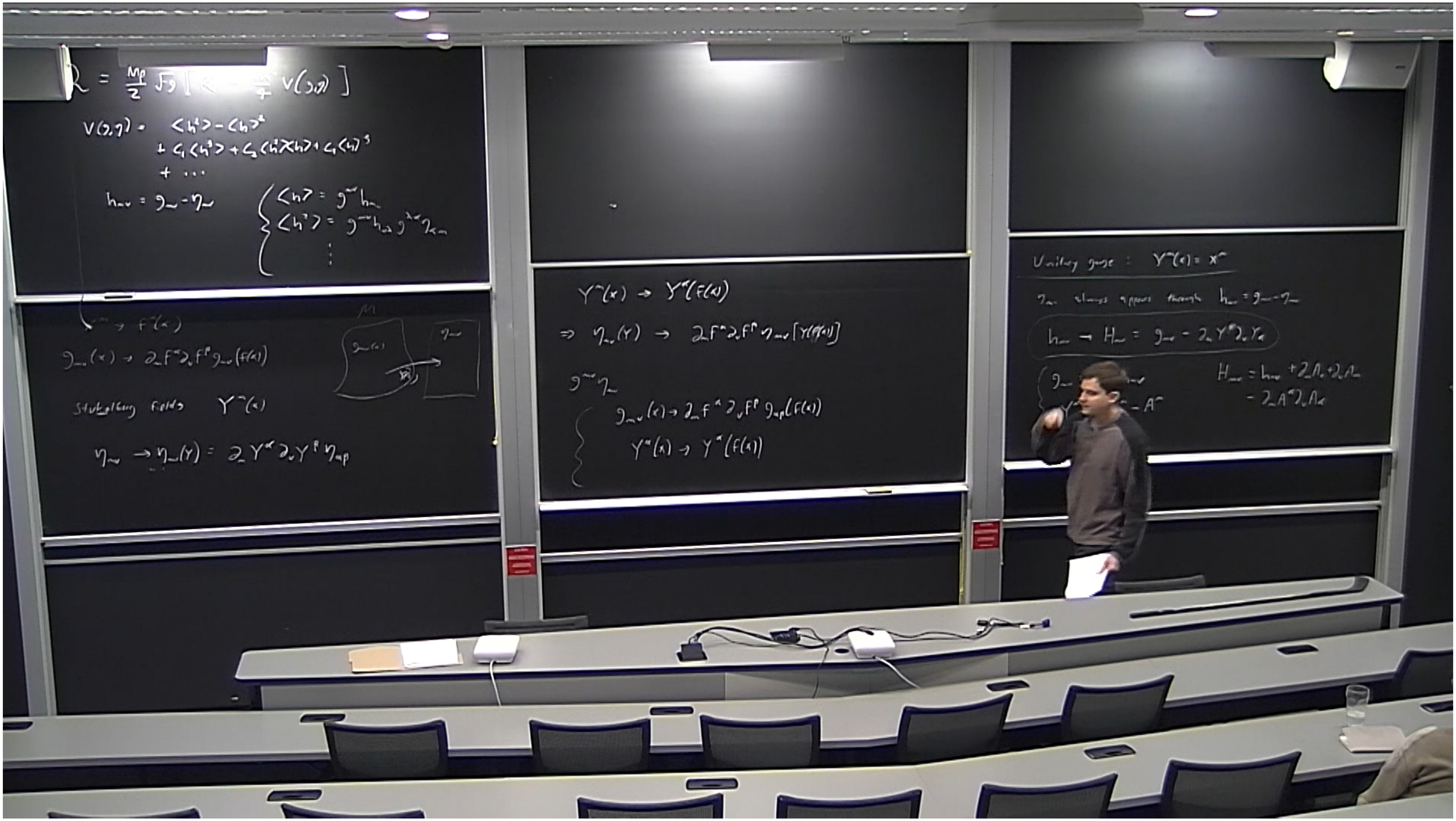
URL: http://pirsa.org/15030132

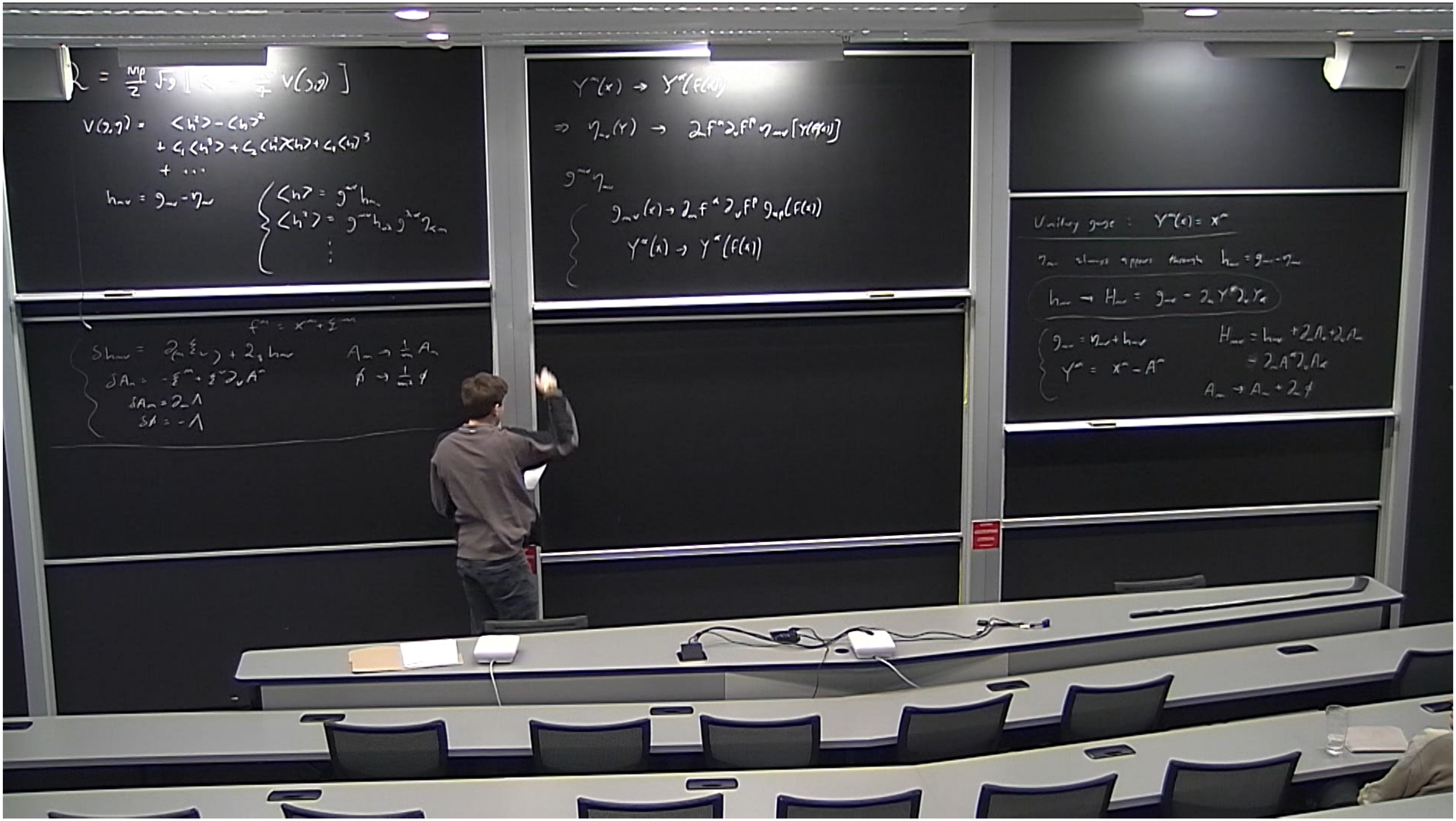
Abstract:

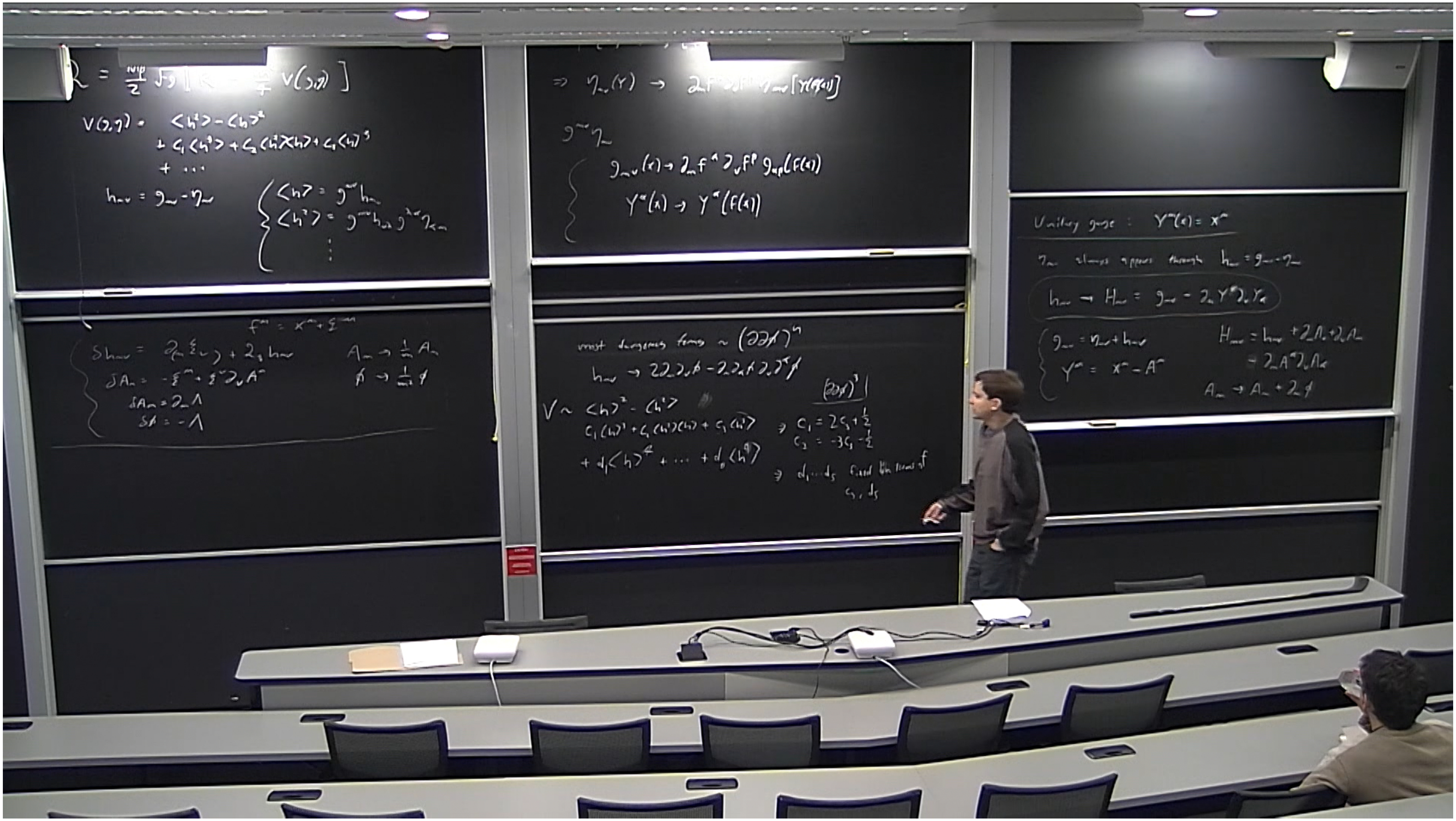

$\mathcal{L} = \frac{M_p^2}{2}\sqrt{-g}\left[R - \frac{m^2}{4}V(g,\eta)\right]$
$V(g,\eta) = \langle h^2\rangle - \langle h\rangle^2$
$+ c_1\langle h^3\rangle + c_2\langle h^2\rangle\langle h\rangle + c_3\langle h\rangle^3$
$+ \cdots$
$h_{\mu\nu} = g_{\mu\nu} - \eta_{\mu\nu}$
$\langle h\rangle = g^{\mu\nu}h_{\mu\nu}$
$\langle h^2\rangle = g^{\mu\nu}h_{\nu\lambda}g^{\lambda\sigma}\eta_{\sigma\mu}$
$\vdots$

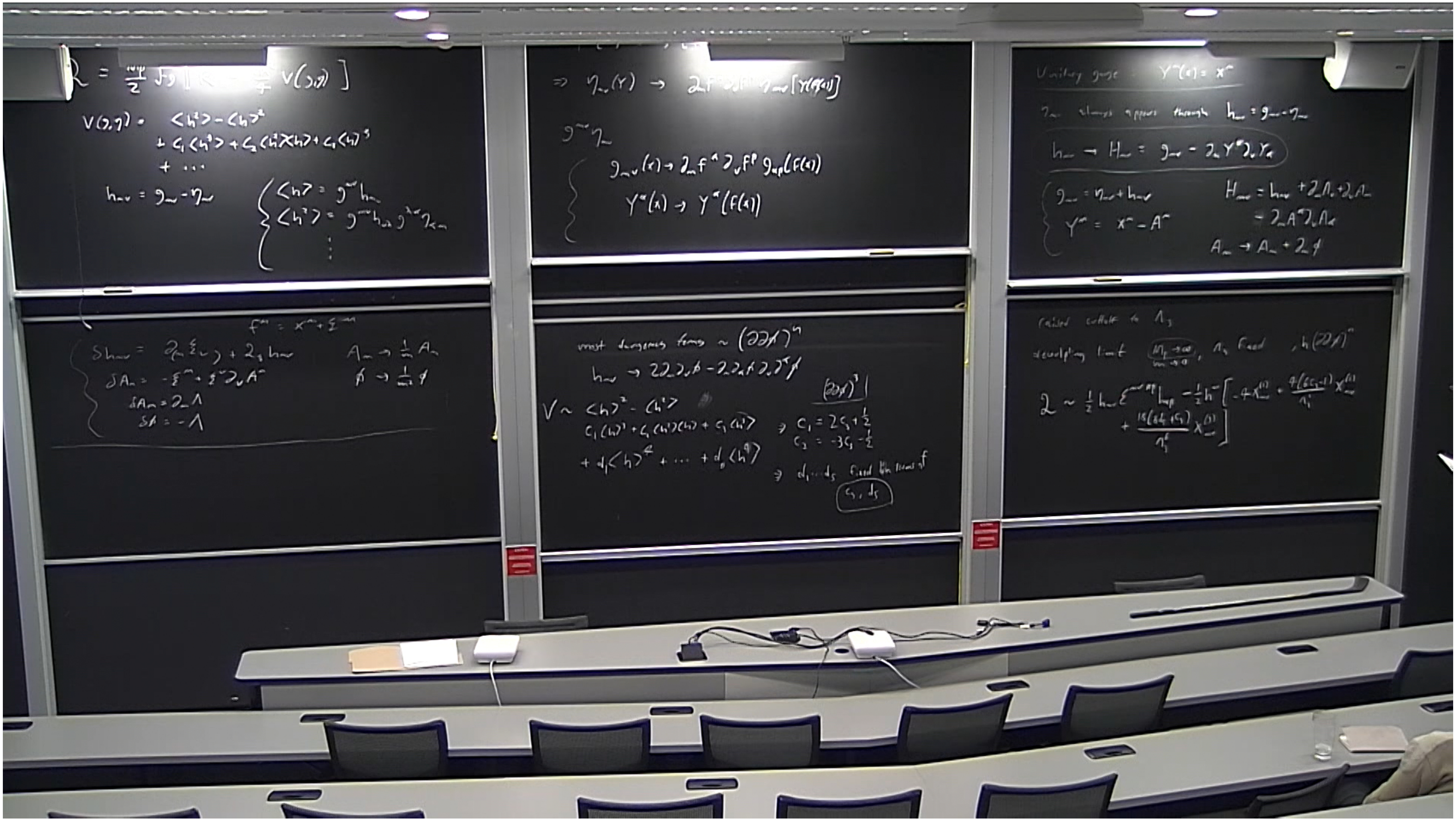

V(g,η) = ⟨h²⟩ − ⟨h⟩²
+ c₁⟨h³⟩ + c₂⟨h²⟩⟨h⟩ + c₃⟨h⟩³
+ ...
h_μν = g_μν − η_μν
Stuckelberg fields Y^μ(x)
η_μν → η_μν(Y) = ∂_μY^α ∂_νY^β η_αβ

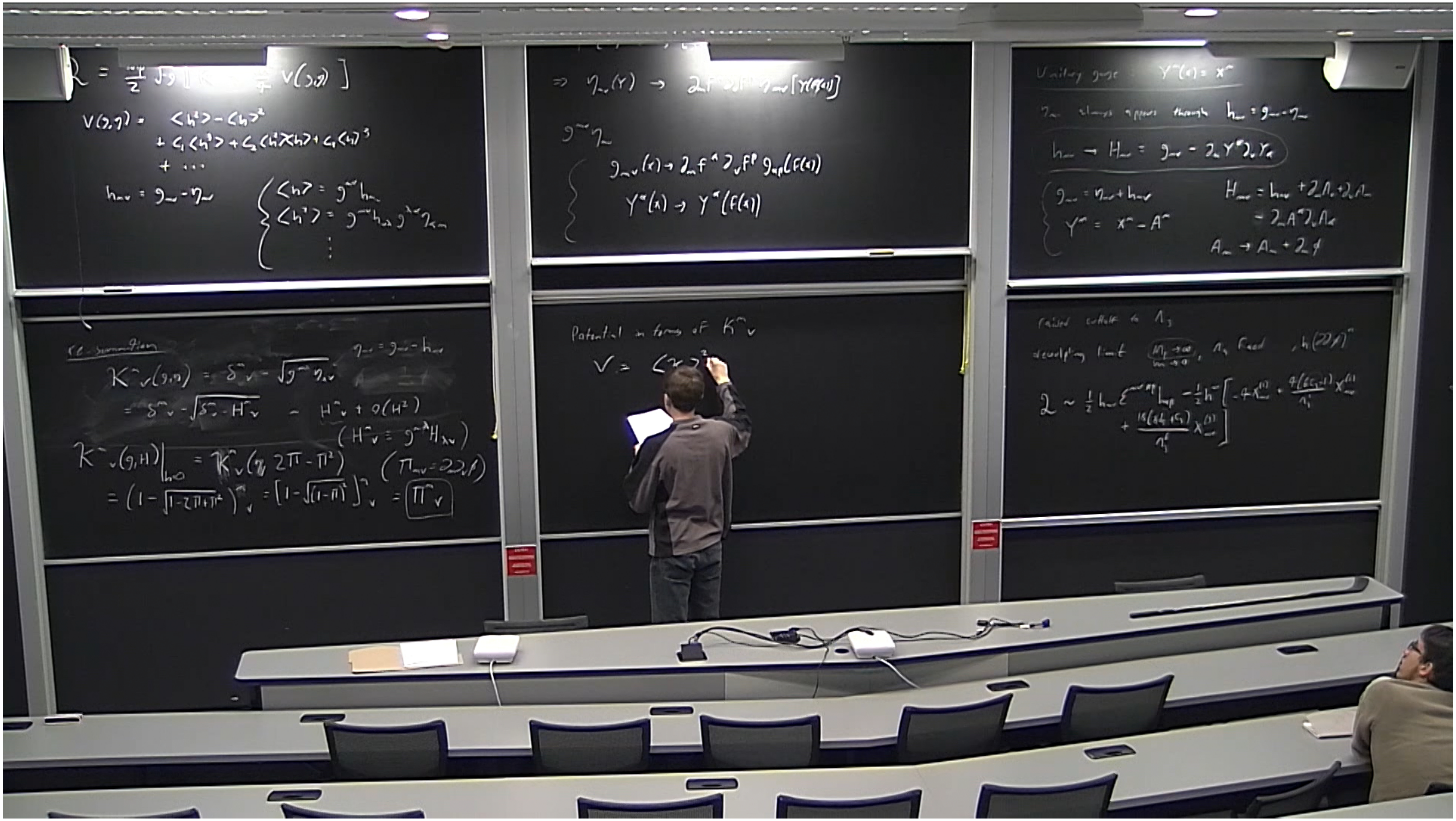

Stuckelberg fields

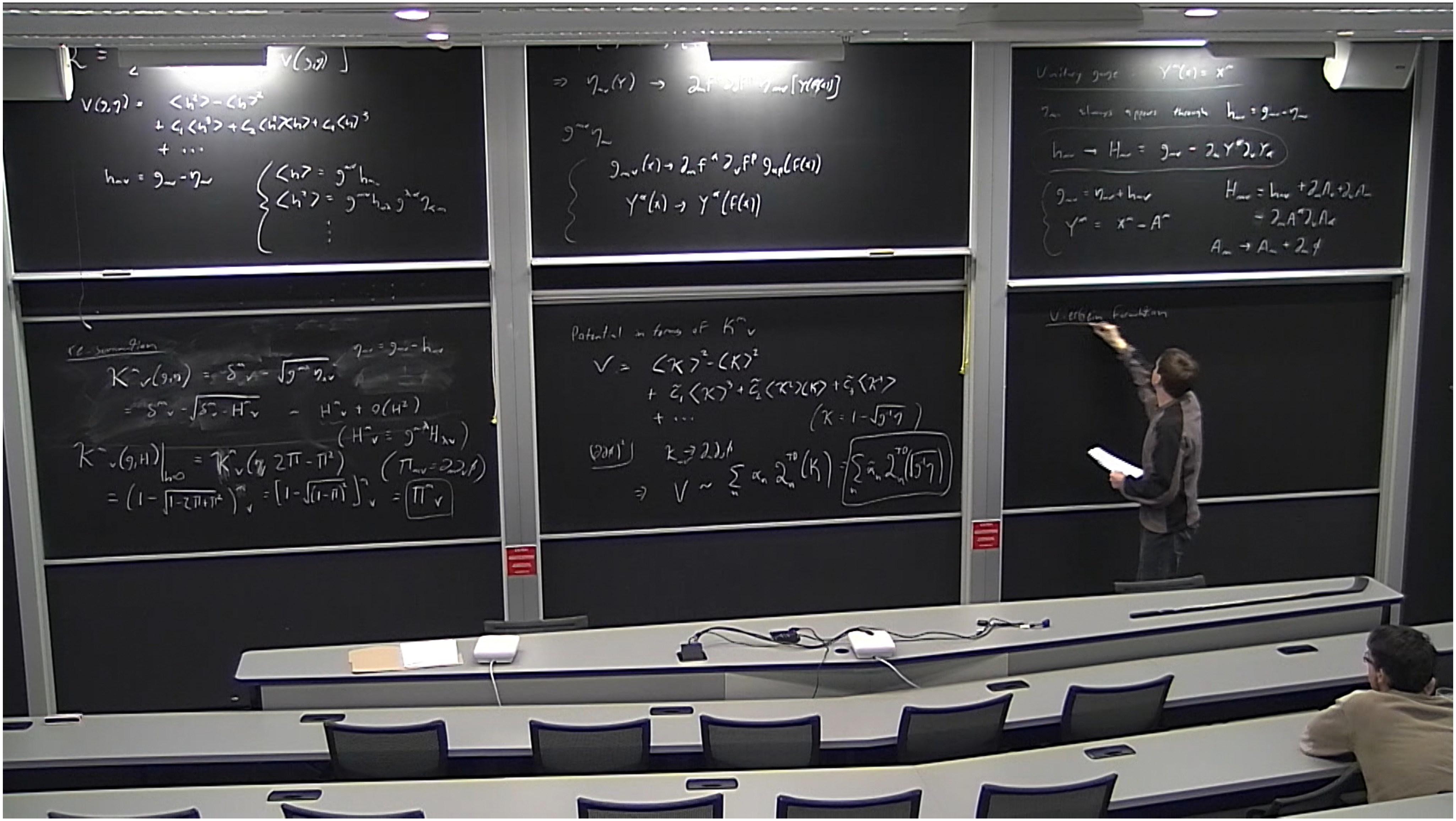


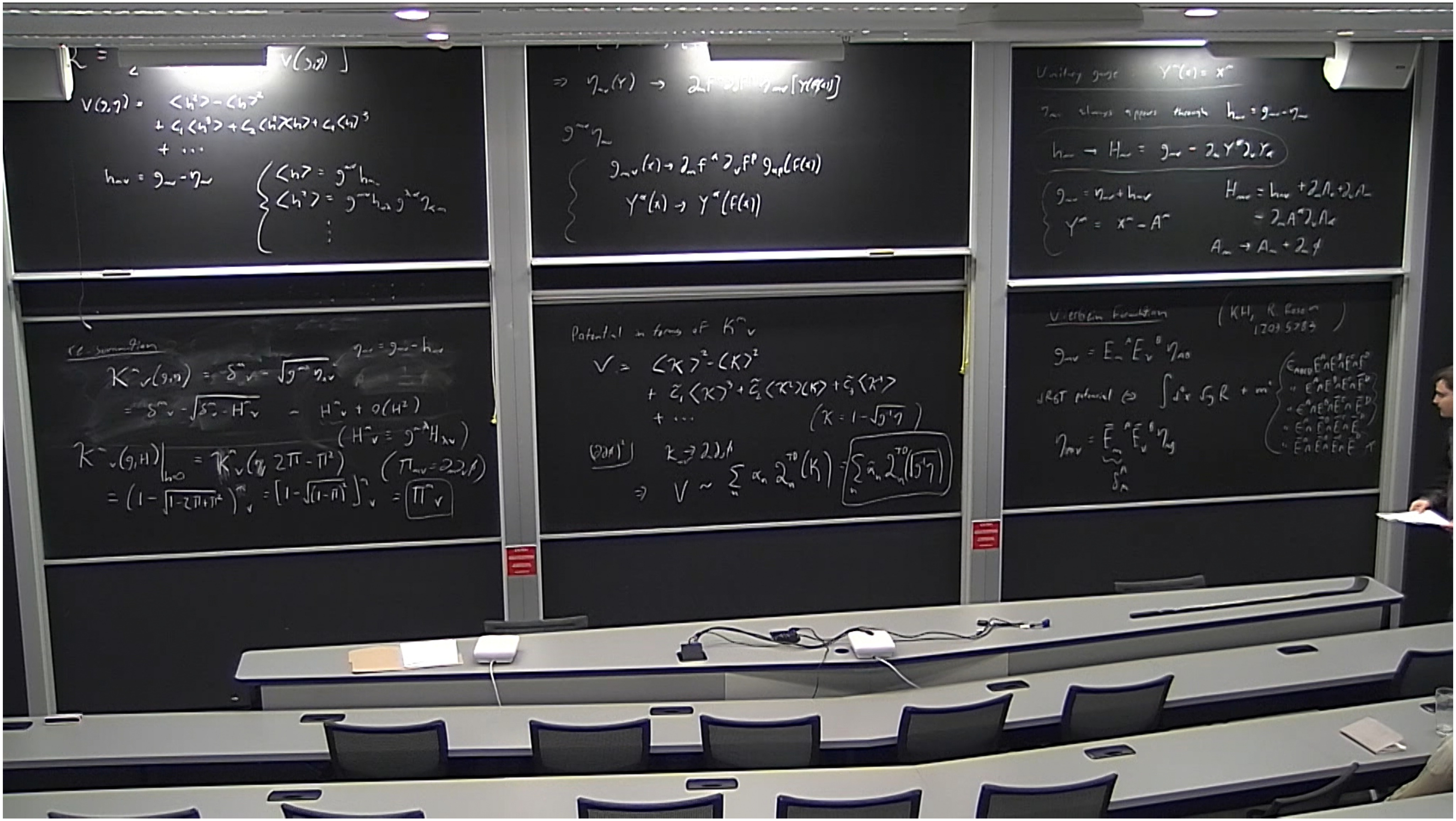

Unitary gauge :
always appears through

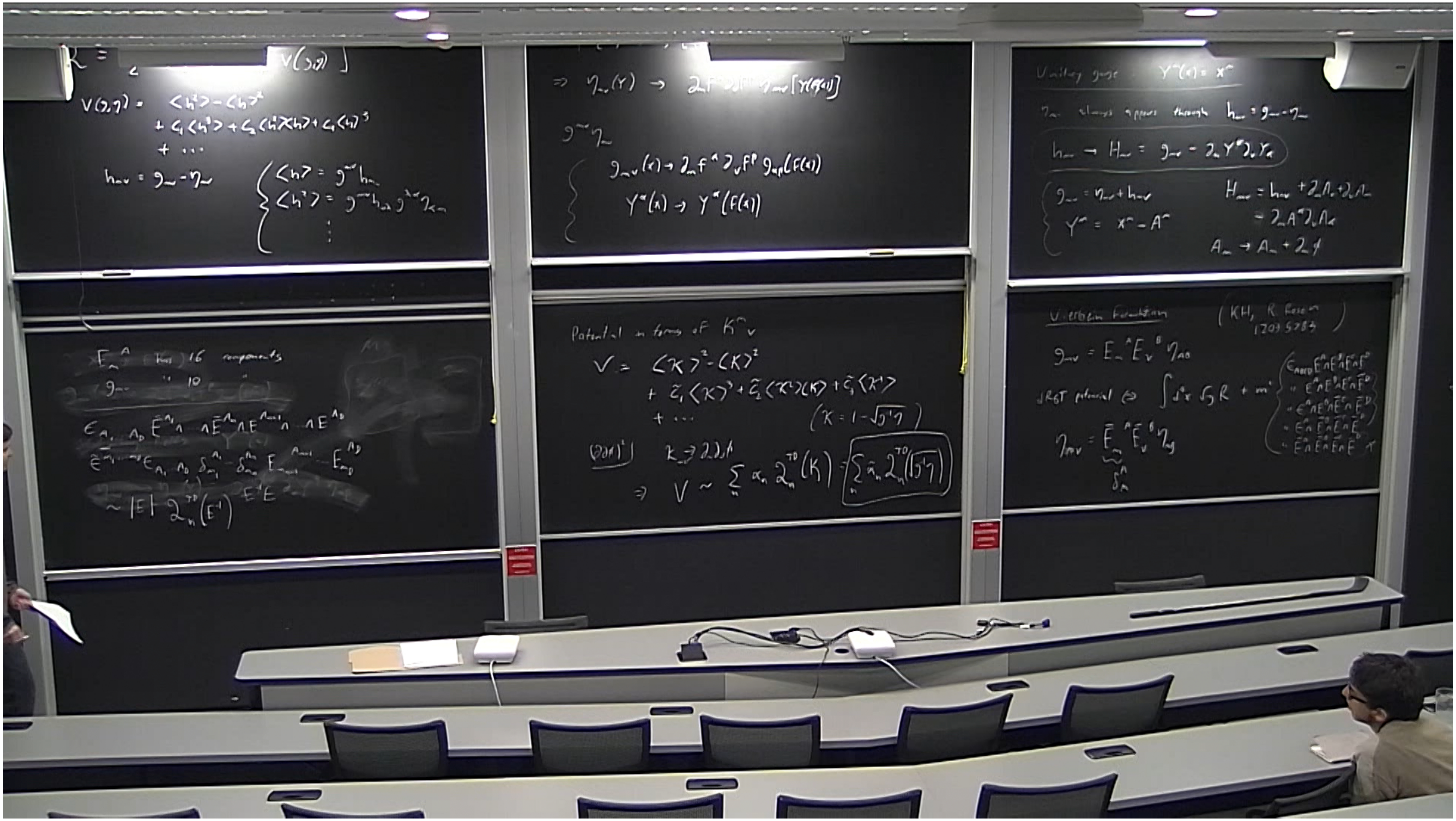

most dangerous terms
Unitary gauge
always appears through

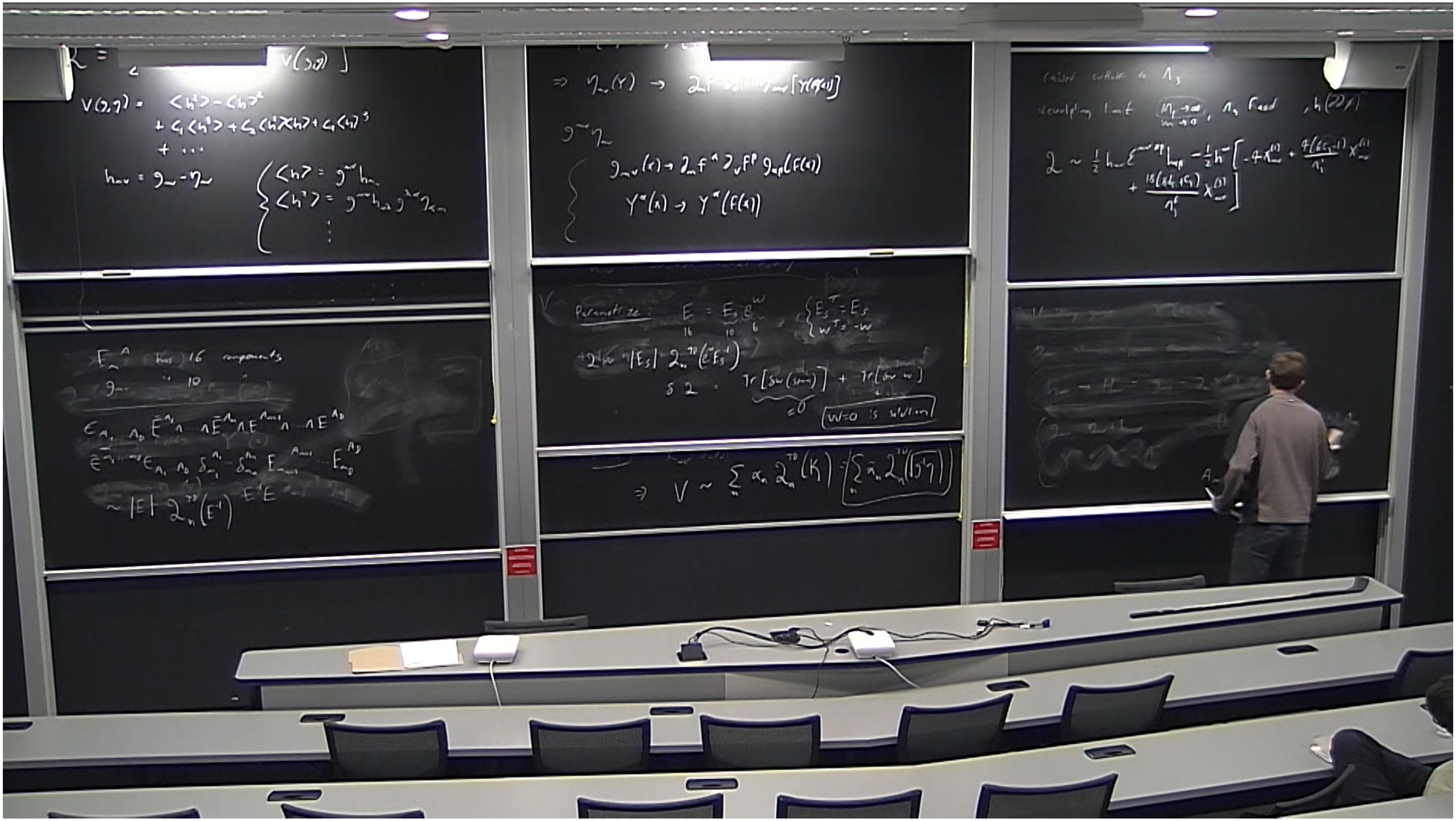

V ~ ⟨h⟩² - ⟨h²⟩
most dangerous terms
Unitary gauge
h → H = g - ∂Y∂Y
A → A + ∂φ



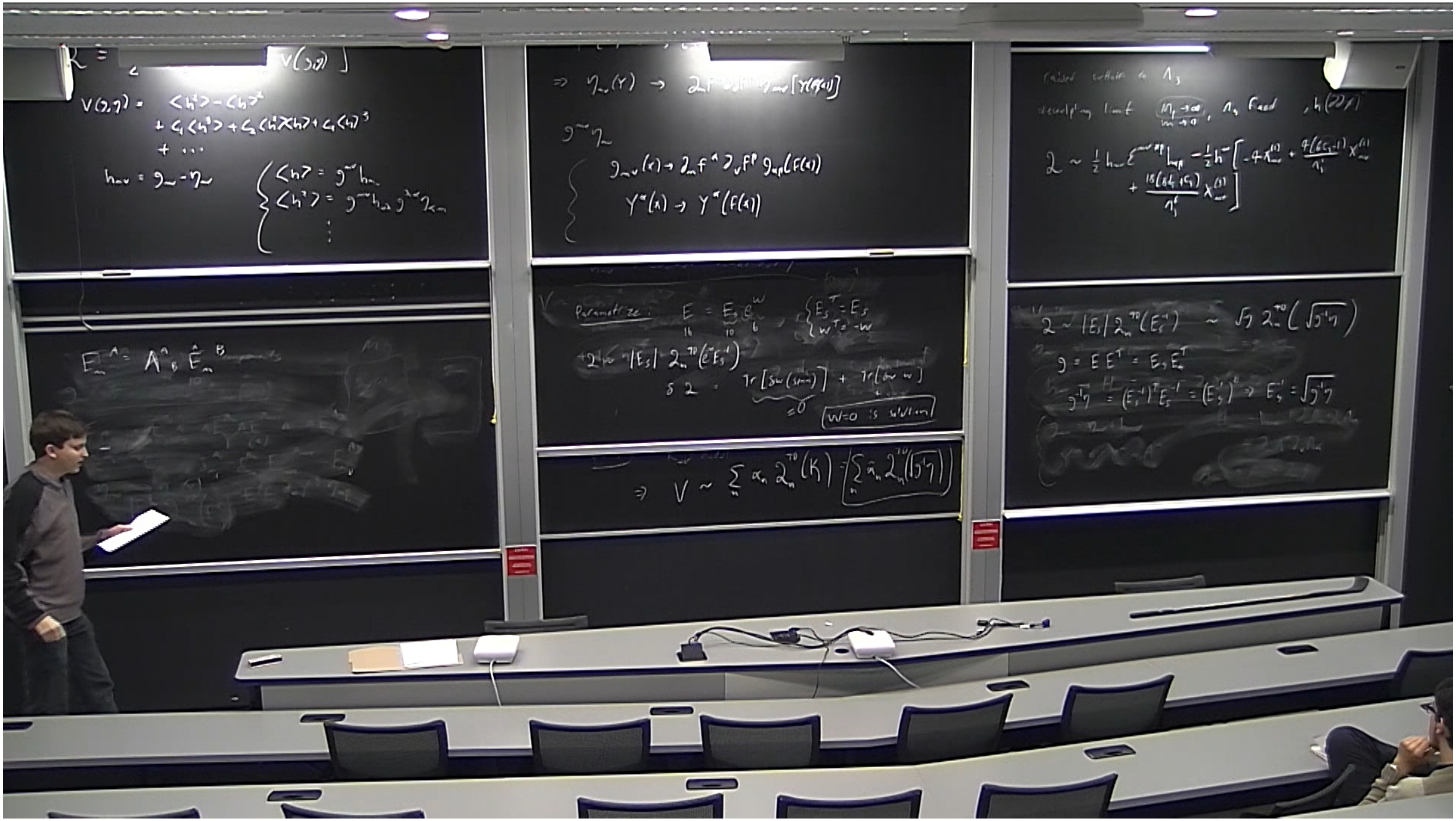



re-summation
Potential in terms of K
Unitary gauge
Vierbein formulation


Unitary gauge
Potential in terms of
Vierbein Formulation



V ~ 1 + 1 ...
Parametrize
W=0 is solution
decoupling limit


Parametrize :
W=0 is sol'n