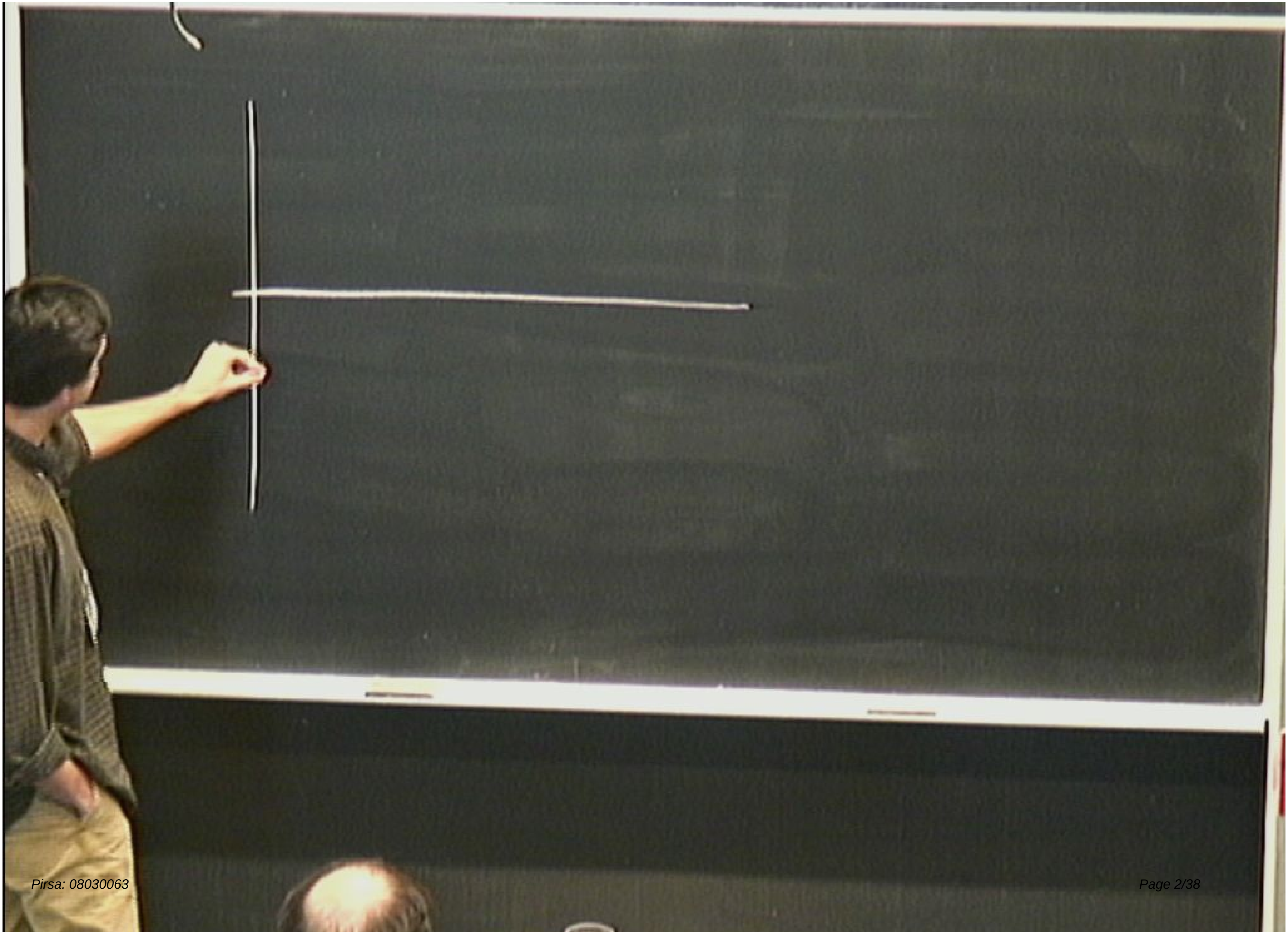
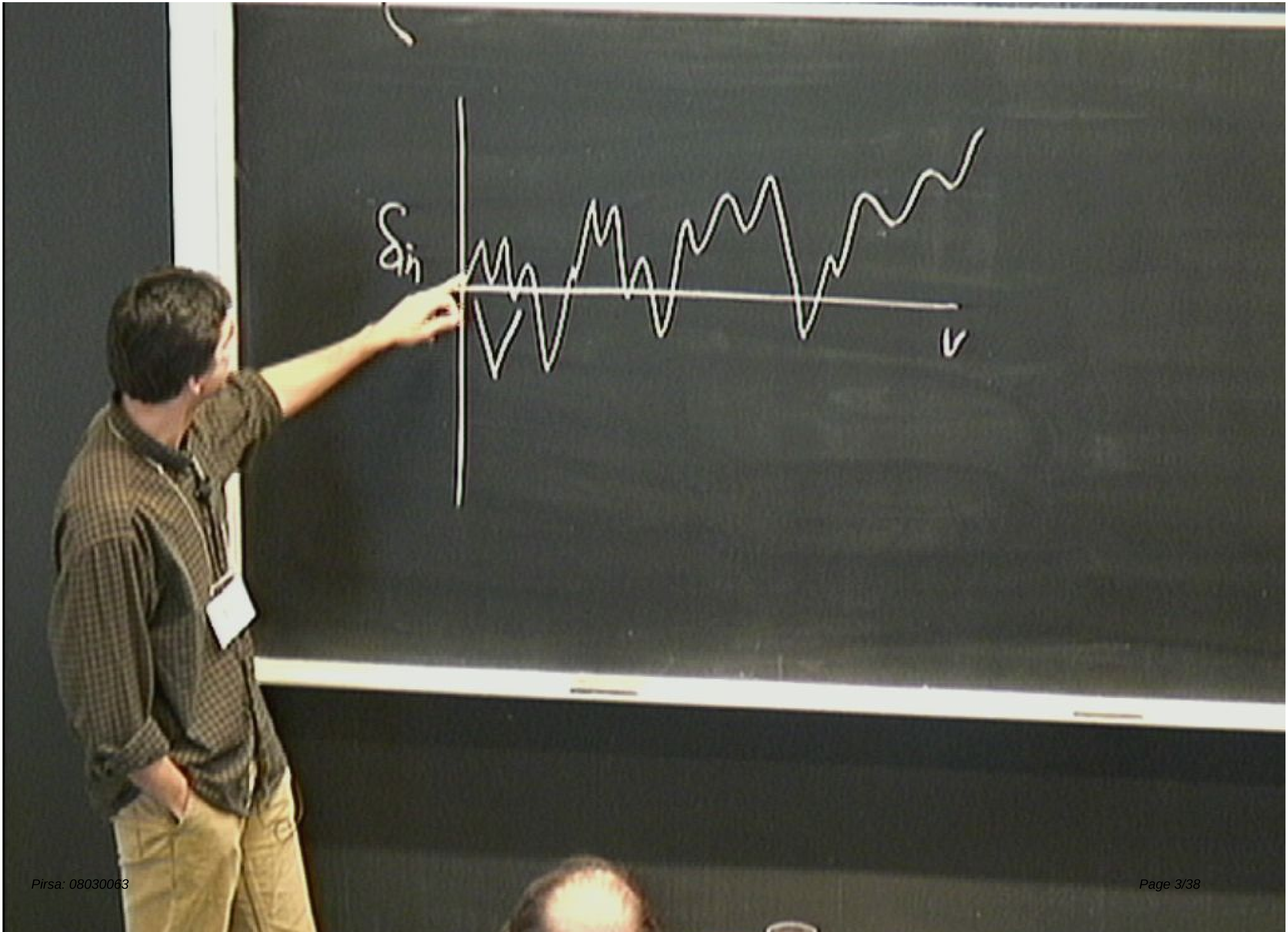
Title: Reconstruction of the primordial density PDF

Date: Mar 09, 2008 05:20 PM

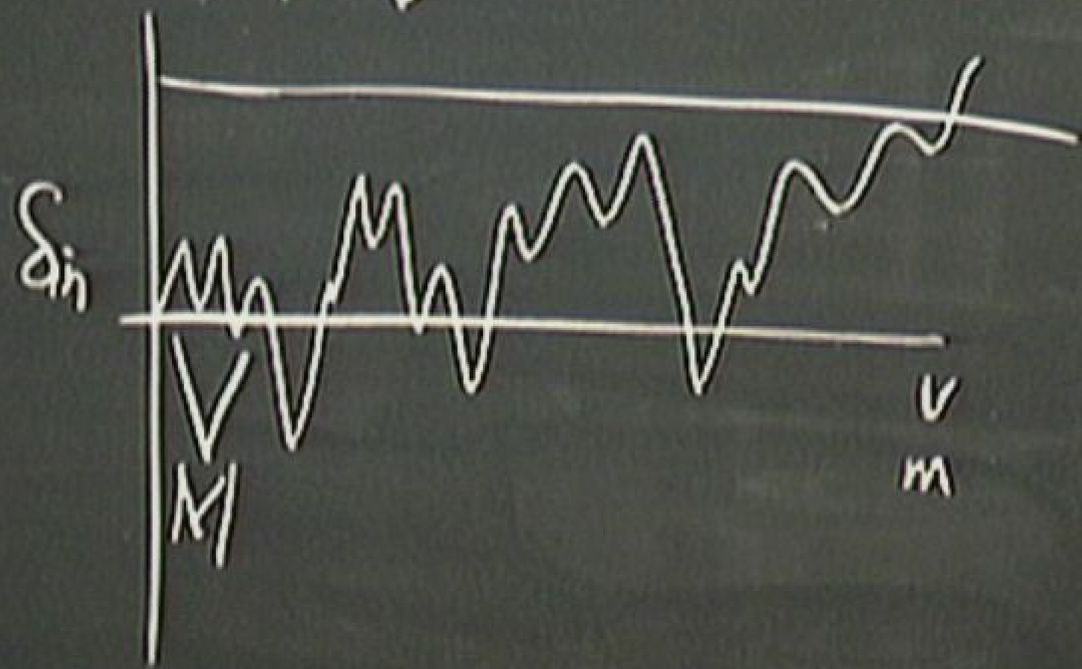
URL: http://pirsa.org/08030063

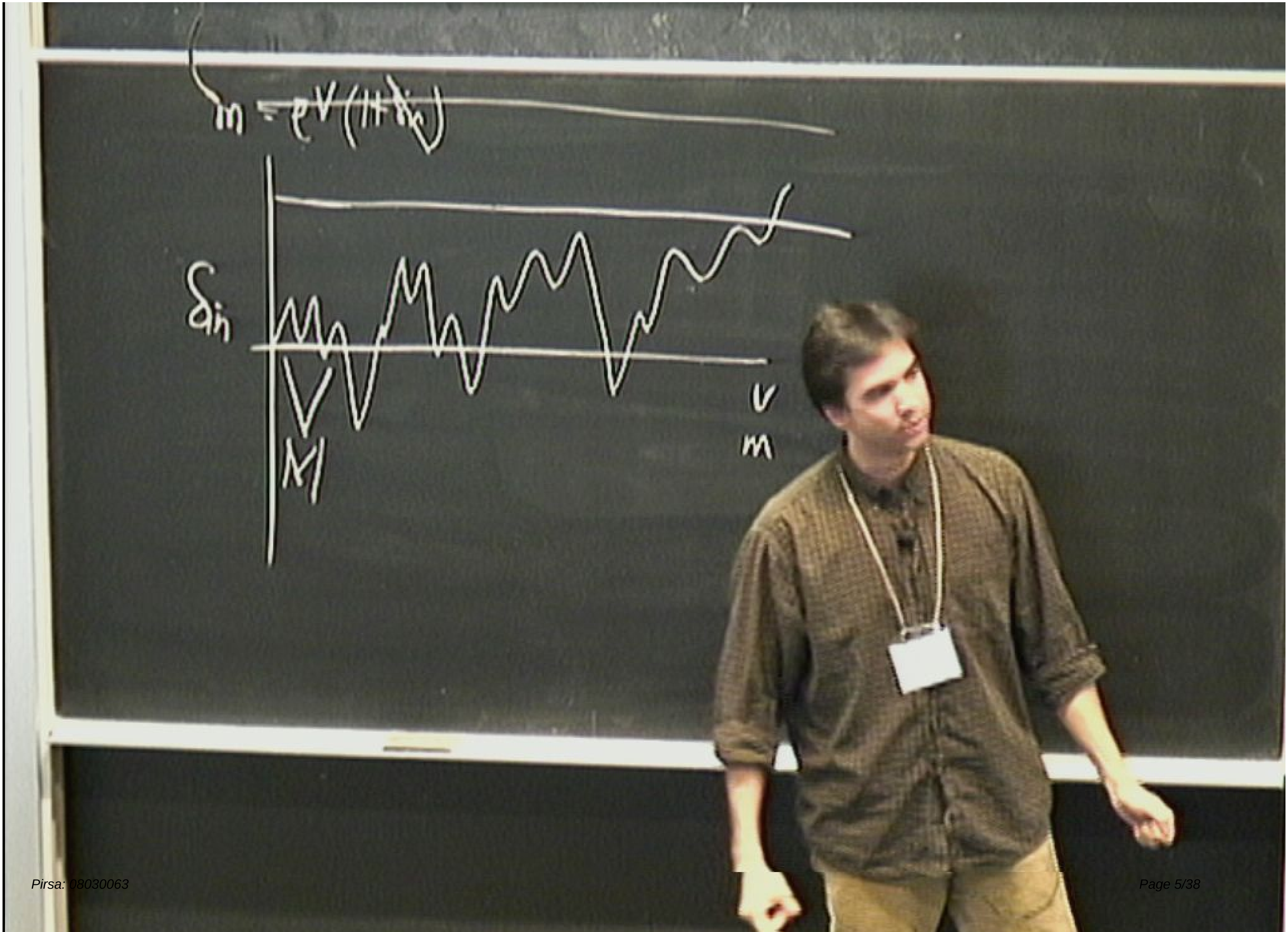
Abstract:

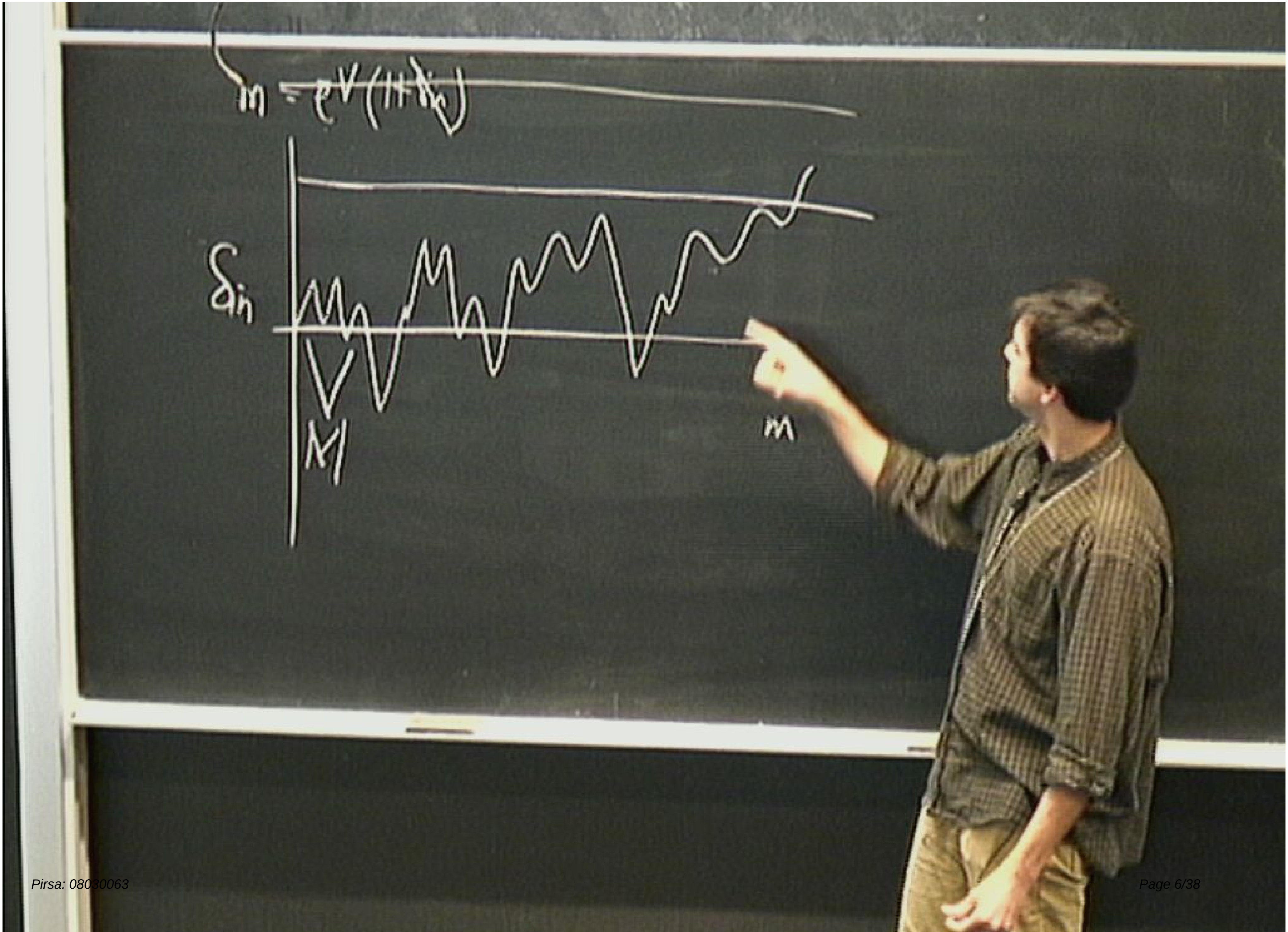


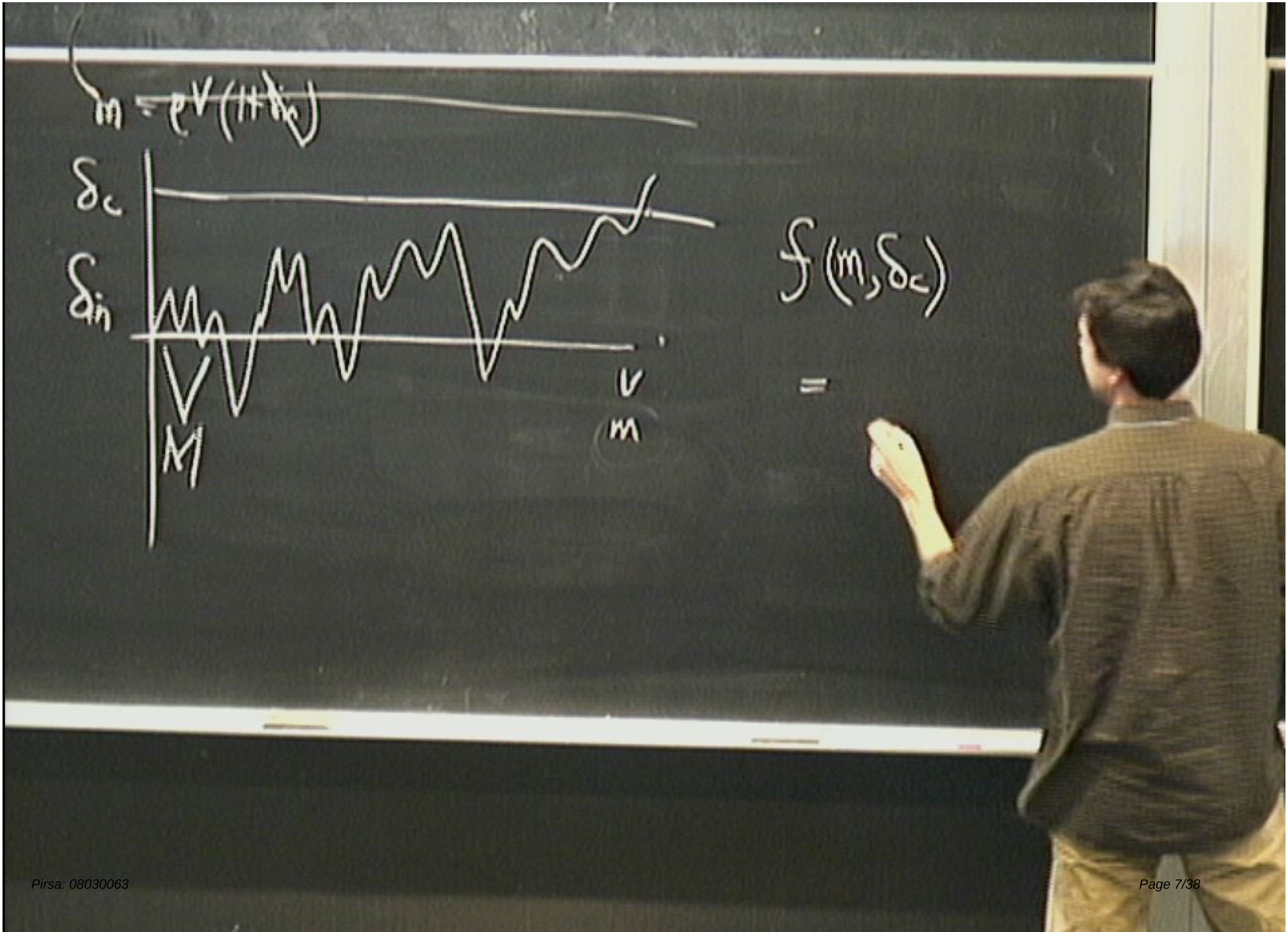

δ_{in}
v

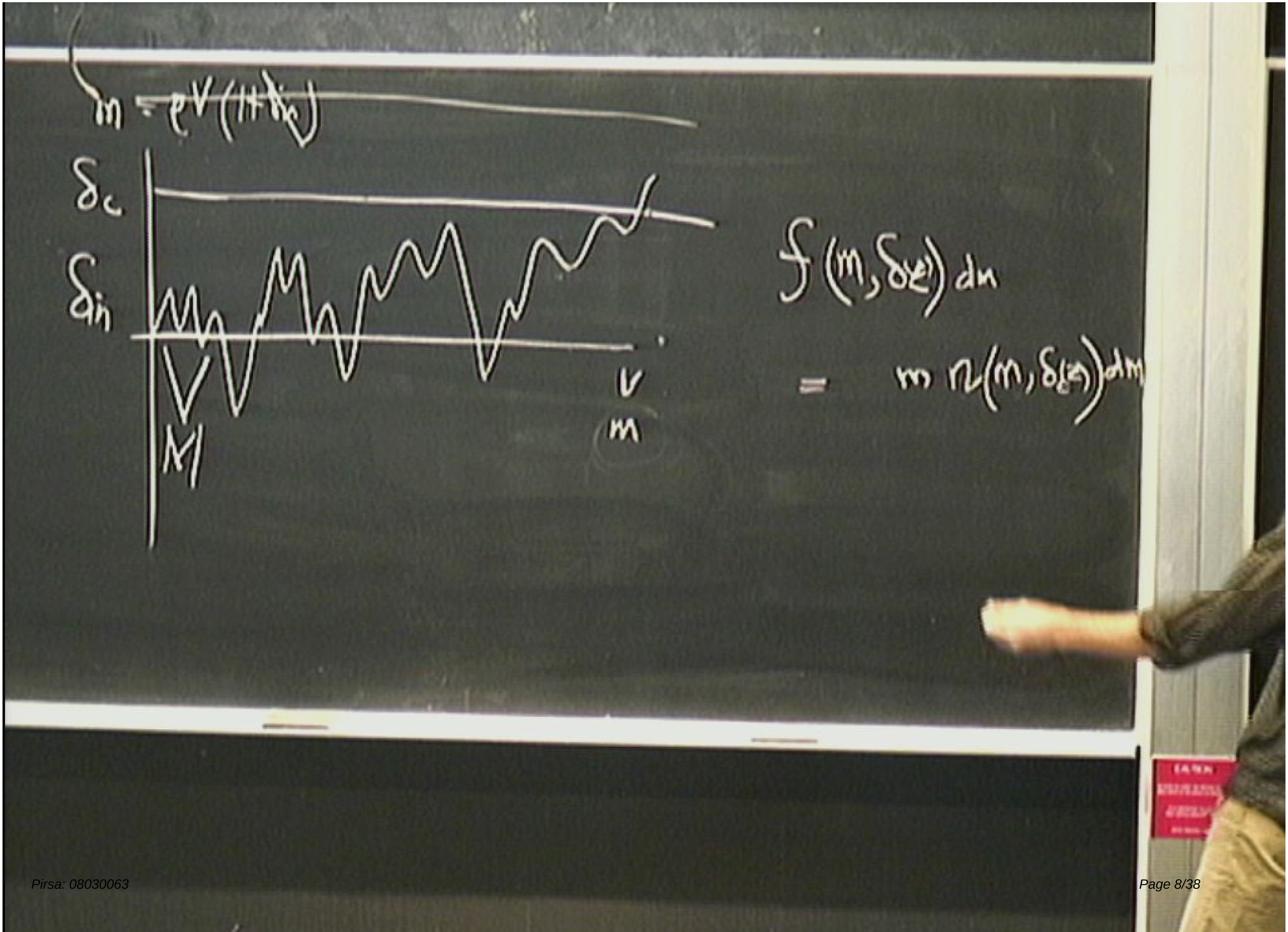
$m = \rho V (1+\delta_m)$



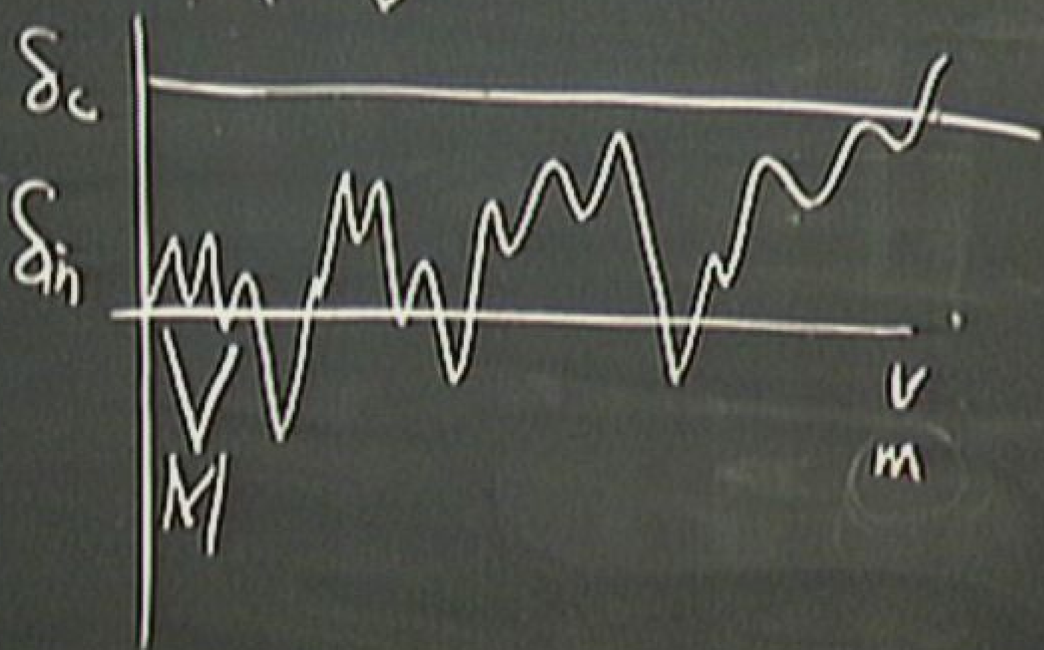

δin
V
m
M


δin
M
m


m = ρV(1+δin)
δc
δin
V
m
M
f(m,δc)
=


δc
δin
M
V
m
f(m, δc(z)) dm
= m n(m, δc(z)) dm

$m = \rho V(1+\delta_c)$

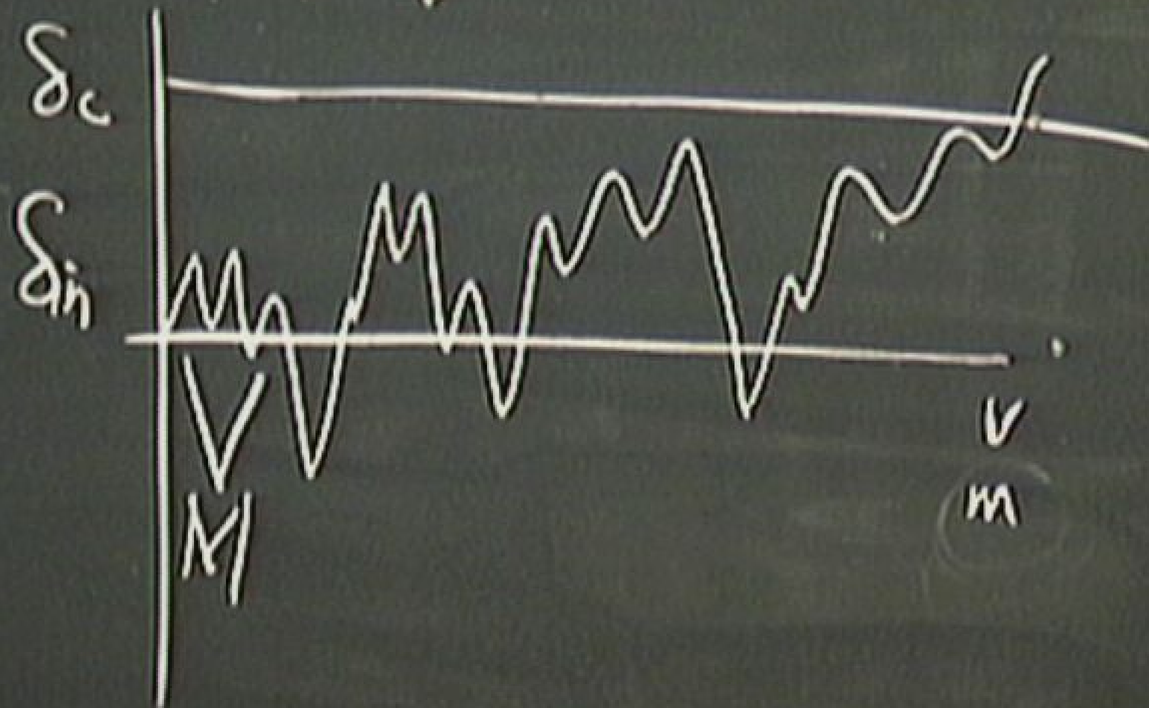


$$f(m,\delta(t))\,dm$$

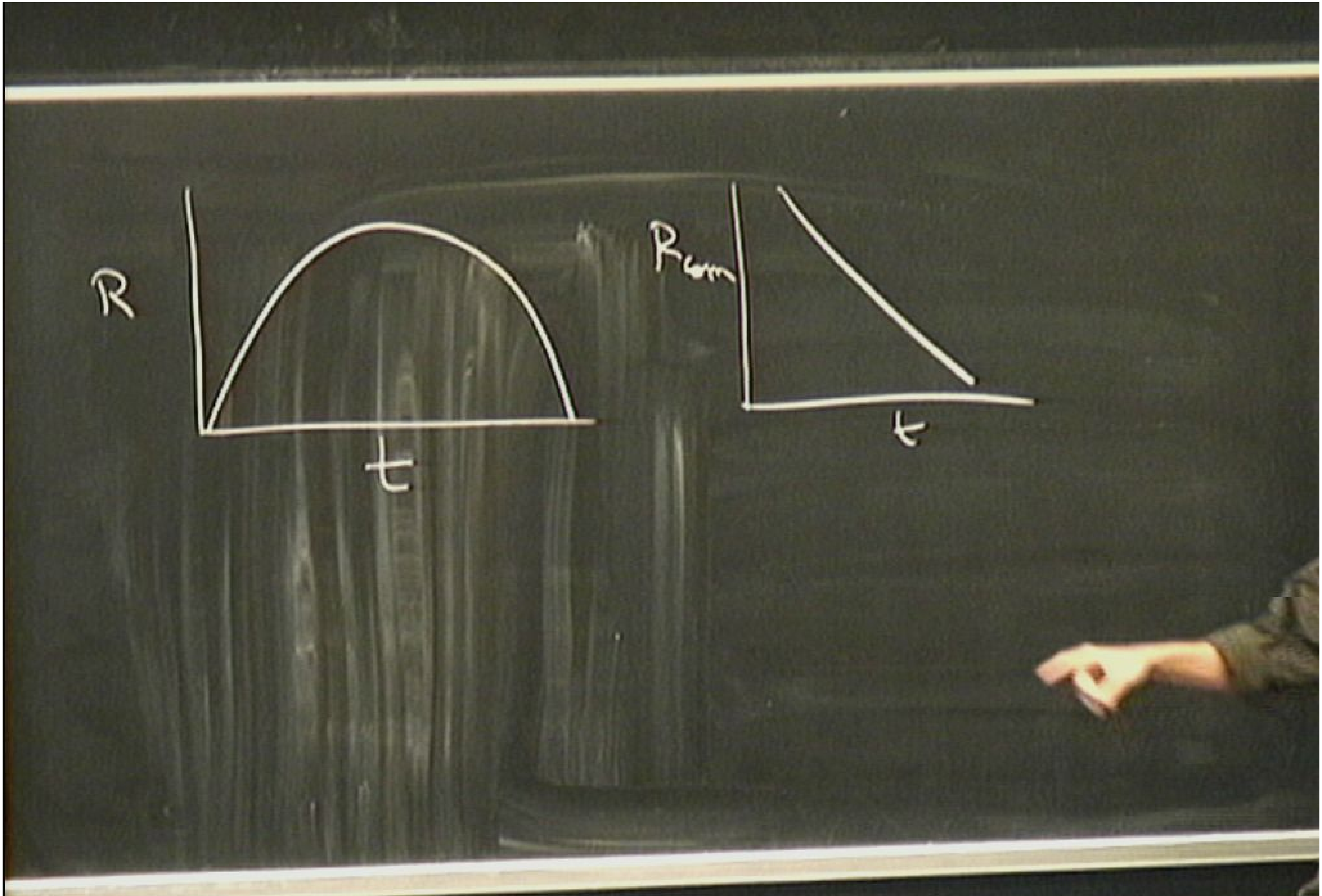
$$= \frac{m\, n(m,\delta_c(t))\,dm}{\rho = \int m\, n(m)\,dm}$$

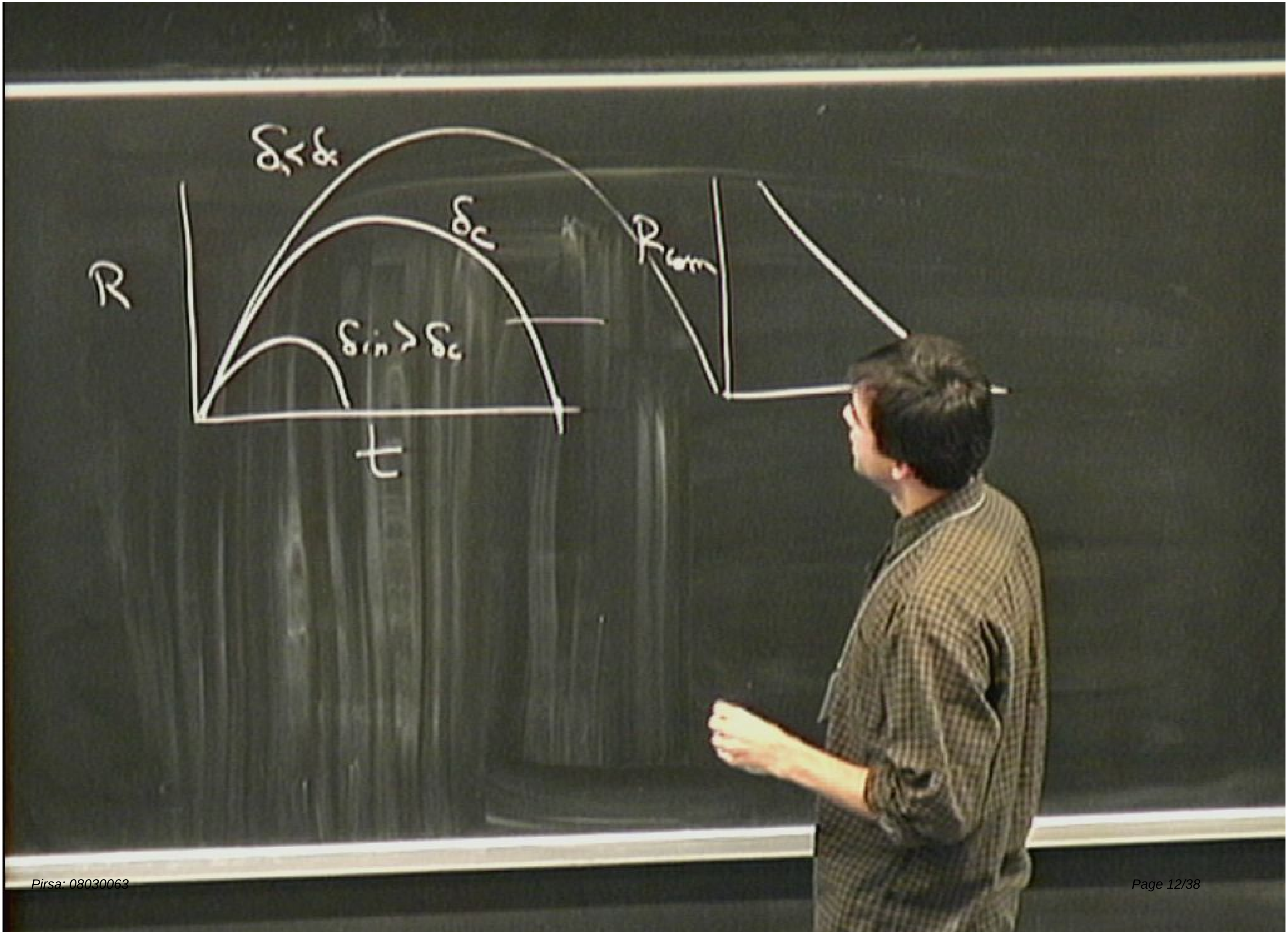
$\cancel{m = \rho V(1+\delta_{in})}$

(Bond et al 91)

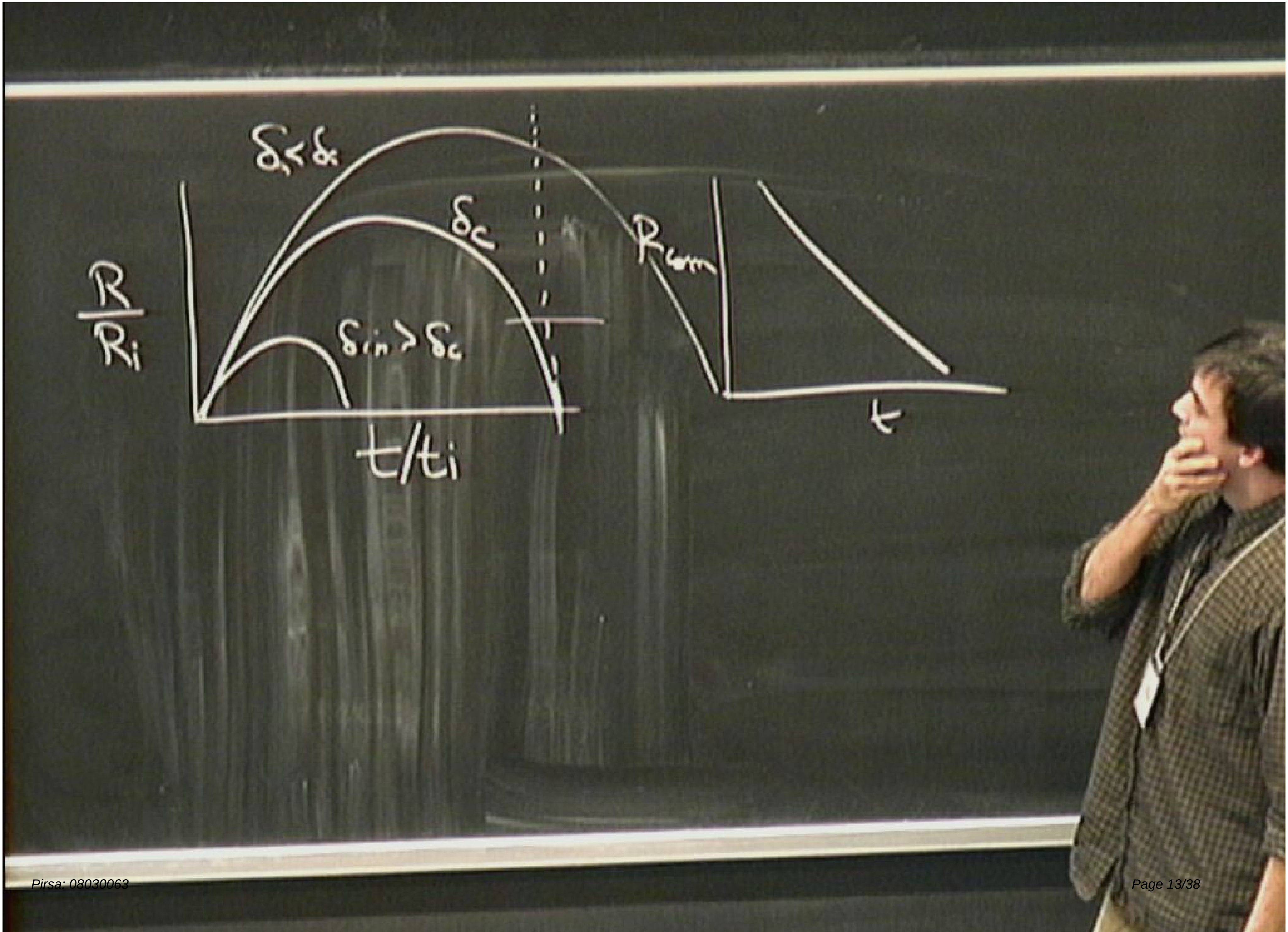


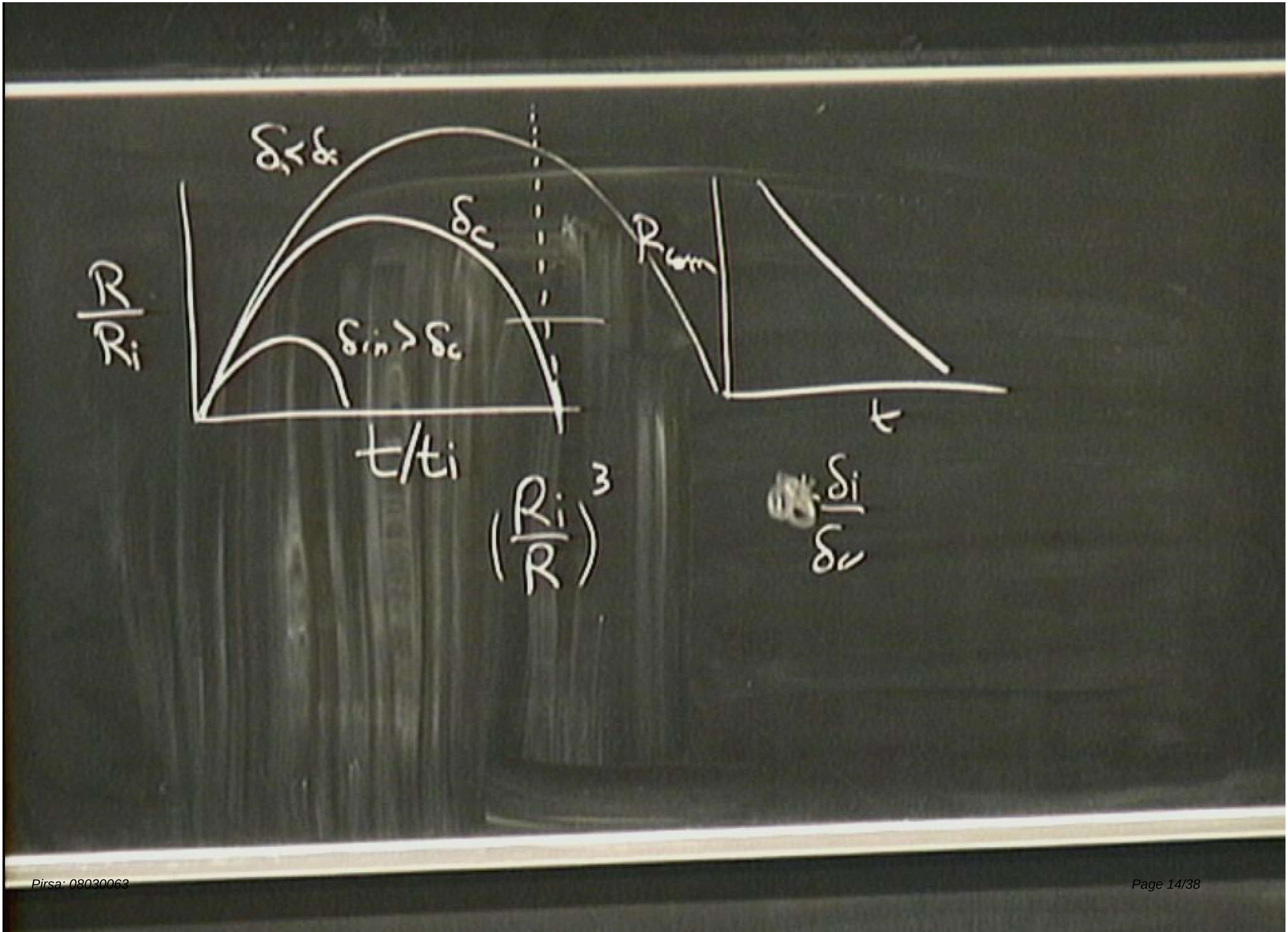
$$f(m, \delta(z))\, dm = \frac{m\, n(m, \delta(z))\, dm}{\rho = \int m\, n(m)\, dm}$$

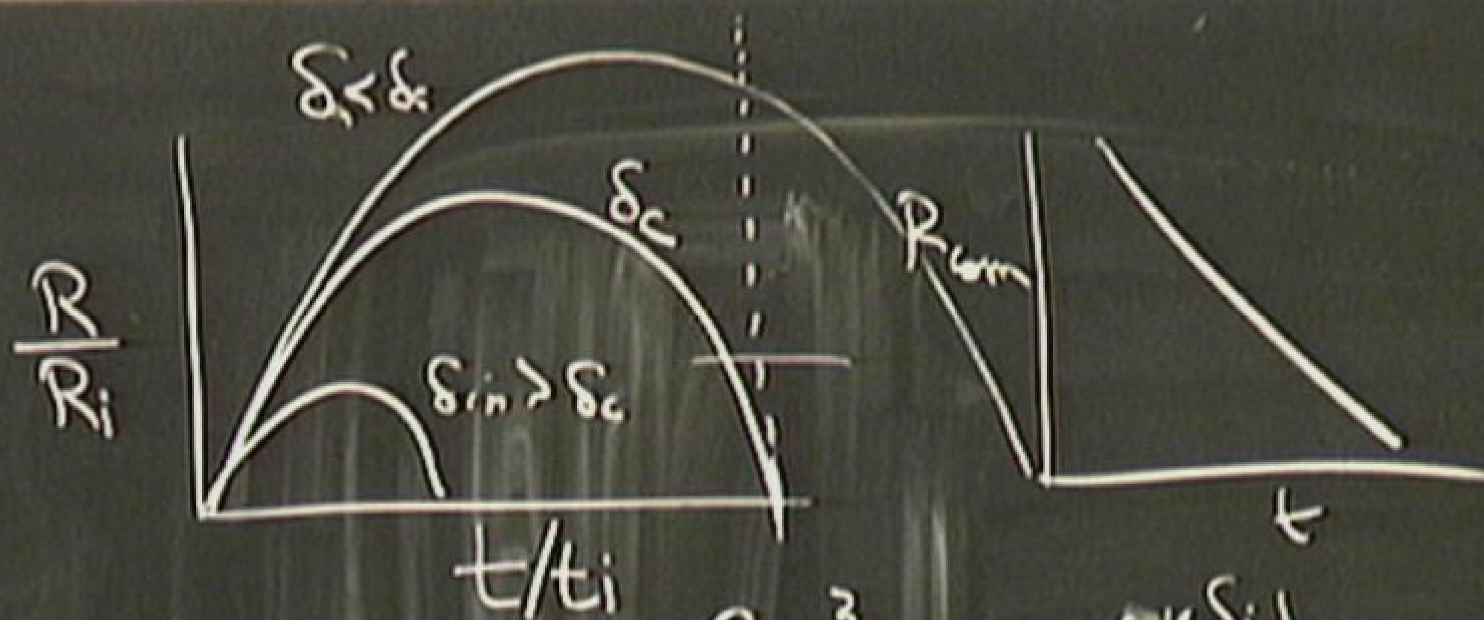

R
t
Rcom
t



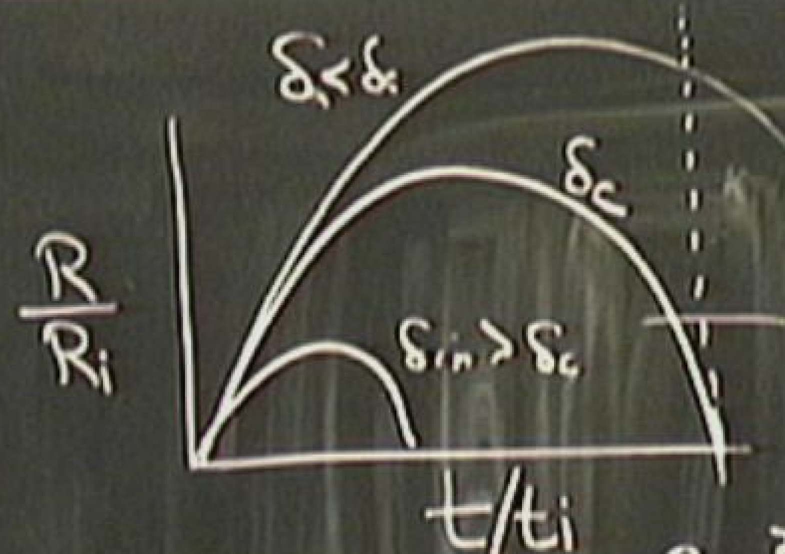
$\delta_i < \delta_c$
δ_c
R
$\delta_{in} > \delta_c$
t
R_{turn}

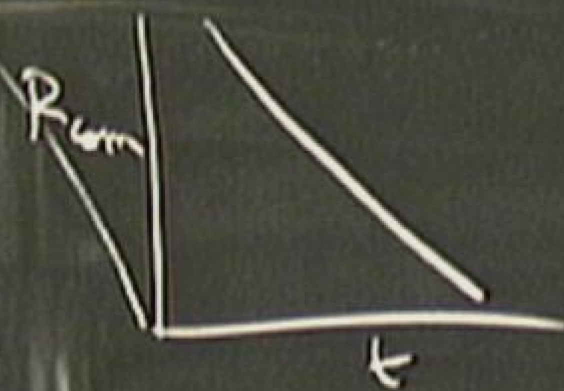

$\delta_i < \delta_c$
δ_c
R_{turn}
$\frac{R}{R_i}$
$\delta_{in} > \delta_c$
t/t_i
t


δi < δc
δc
R/Ri
δin > δc
t/ti
t
(Ri/R)^3
δi/δv

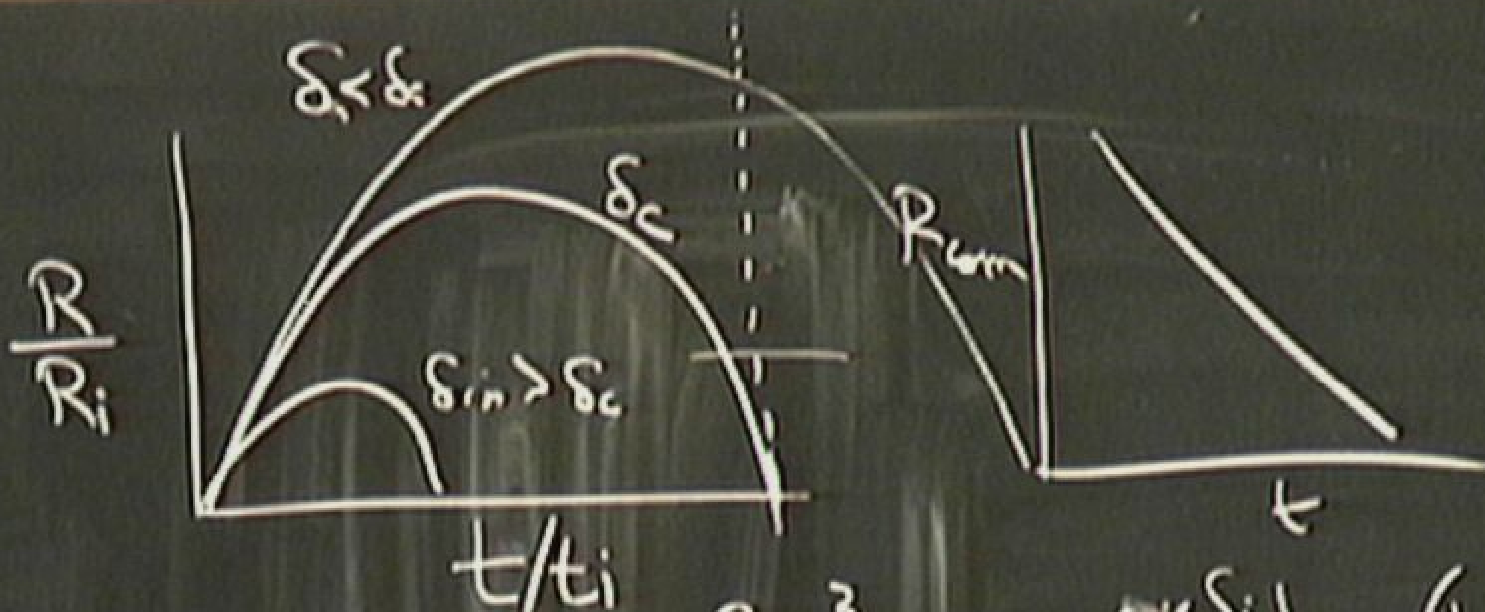


$$1+\Delta = \frac{M}{V} = \left(\frac{R_i}{R}\right)^3 = f\left(\frac{\delta_i}{\delta_c}\right)$$



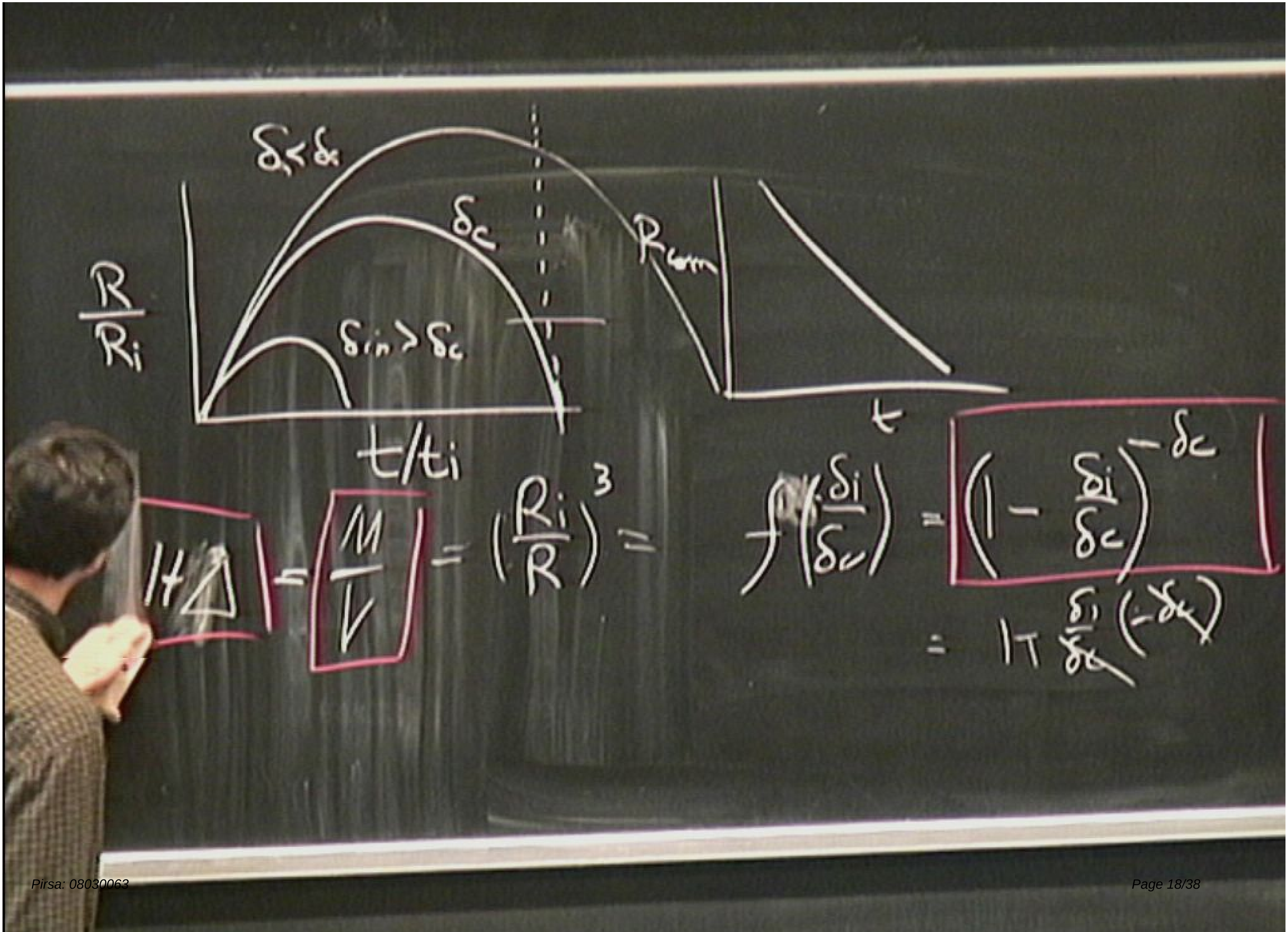


$$1+\Delta = \frac{M}{V} = \left(\frac{R_i}{R}\right)^3 = f\left(\frac{\delta_i}{\delta_c}\right) = \left(1-\frac{\delta_i}{\delta_c}\right)^{-\delta_c}$$



$$1+\Delta = \frac{M}{V} = \left(\frac{R_i}{R}\right)^3 = f\left(\frac{\delta_i}{\delta_c}\right) = \left(1-\frac{\delta_i}{\delta_c}\right)^{-\delta_c}$$

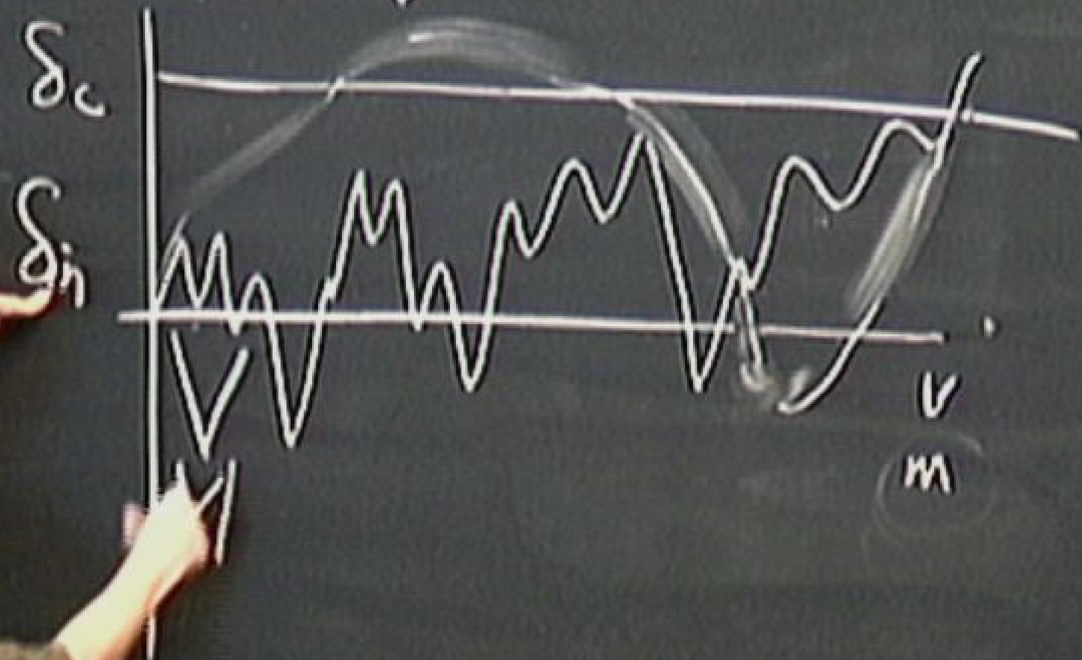
$$= 1 + \frac{\delta_i}{\delta_c}(-\delta_c)$$



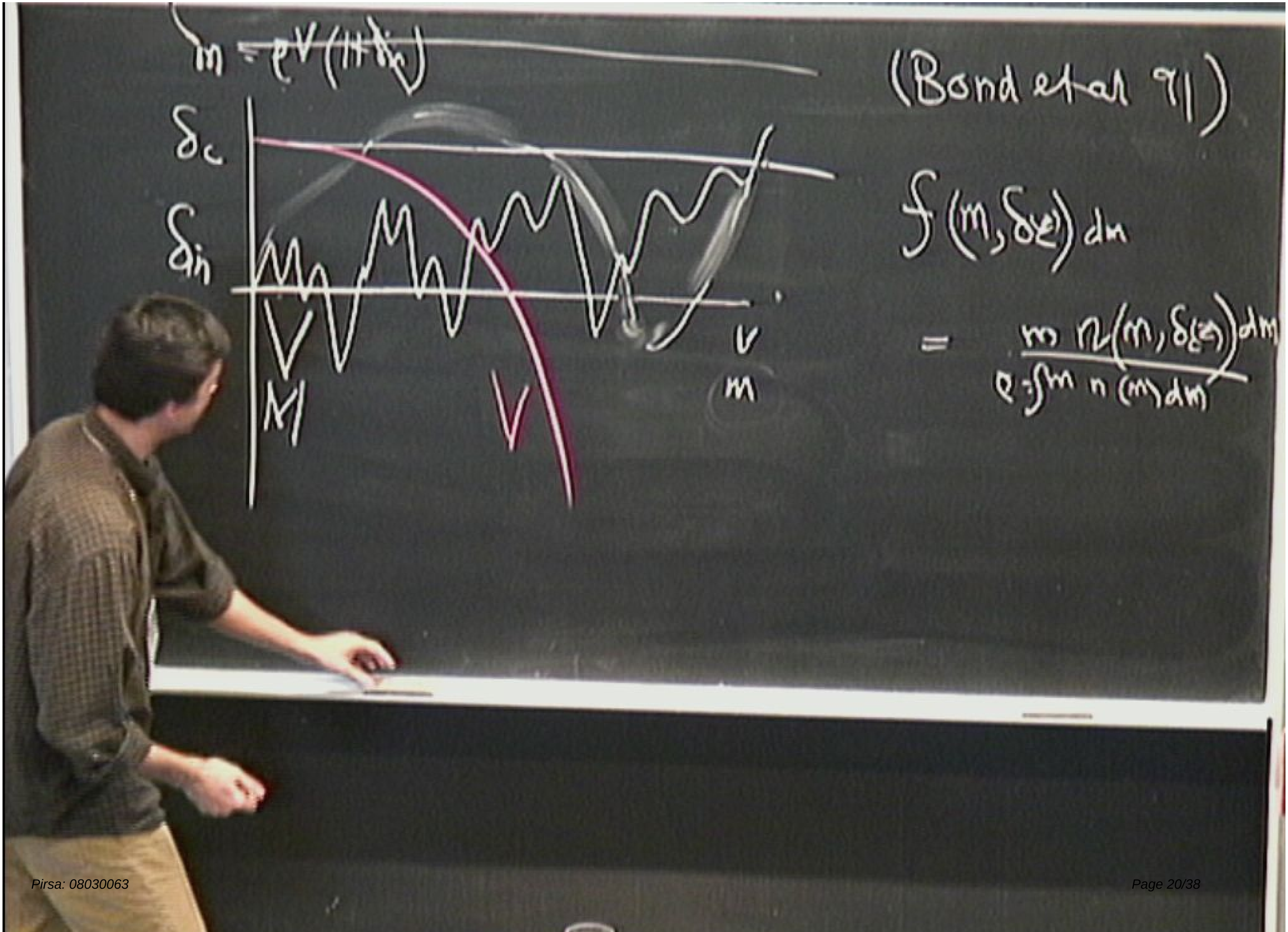
δi < δc
δc
δin > δc
R/Ri
t/ti
Rturn
t
1+Δ = M/V = (Ri/R)^3 =
f(δi/δc) = (1 − δi/δc)^−δc
= 1 + δi/δc (−δc)

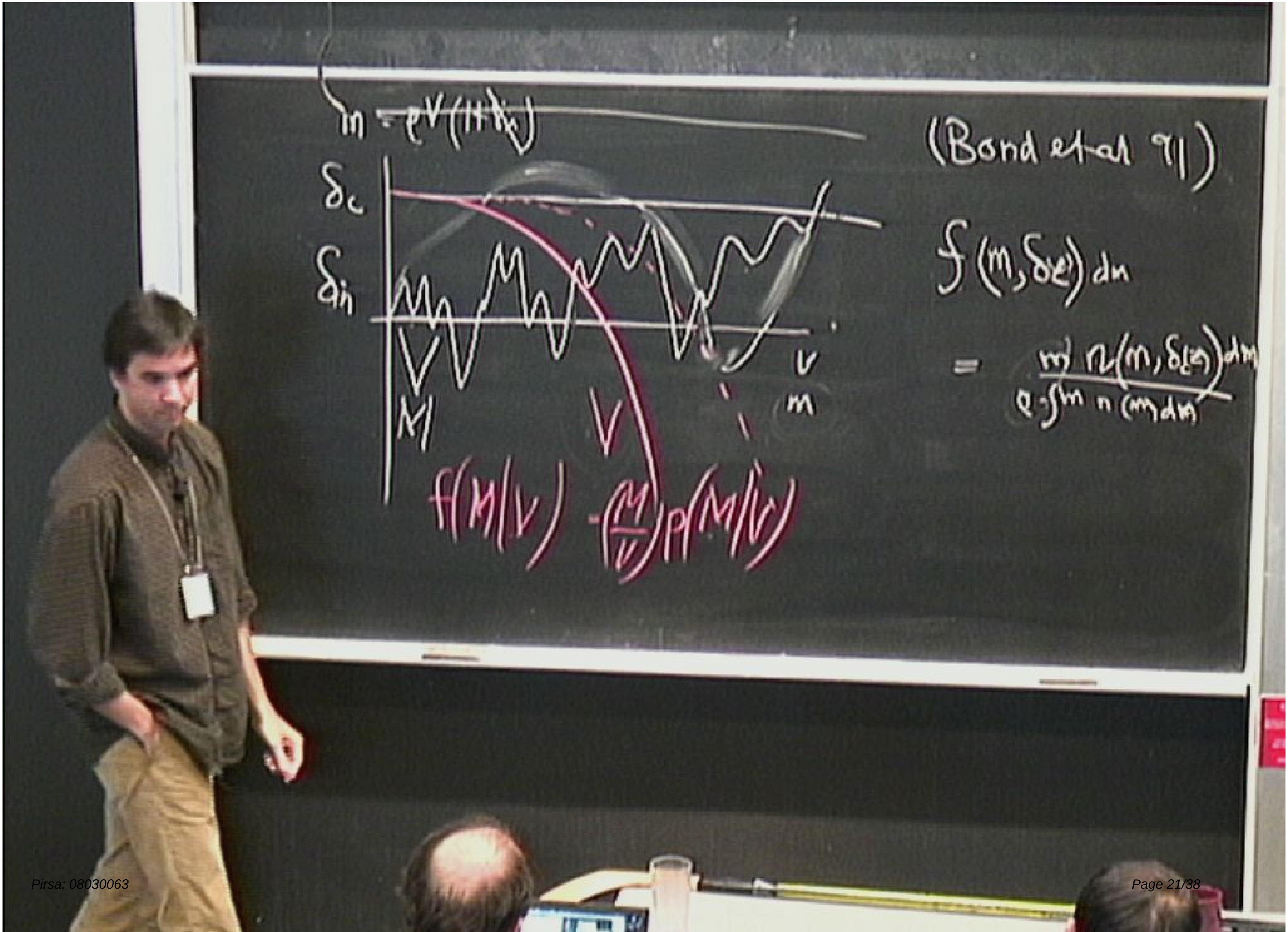
~~$m = \rho V(1+\delta_m)$~~

(Bond et al 91)

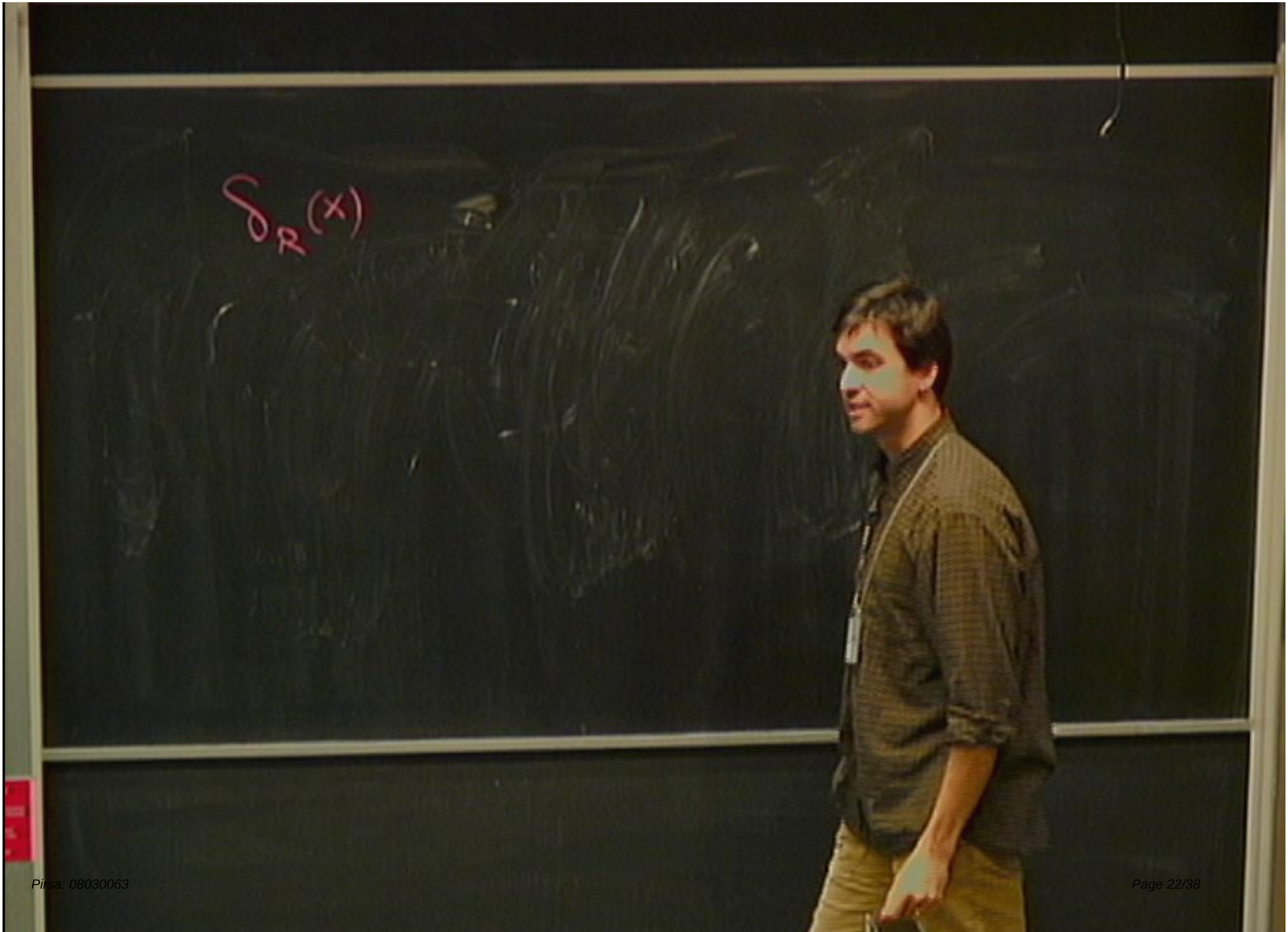


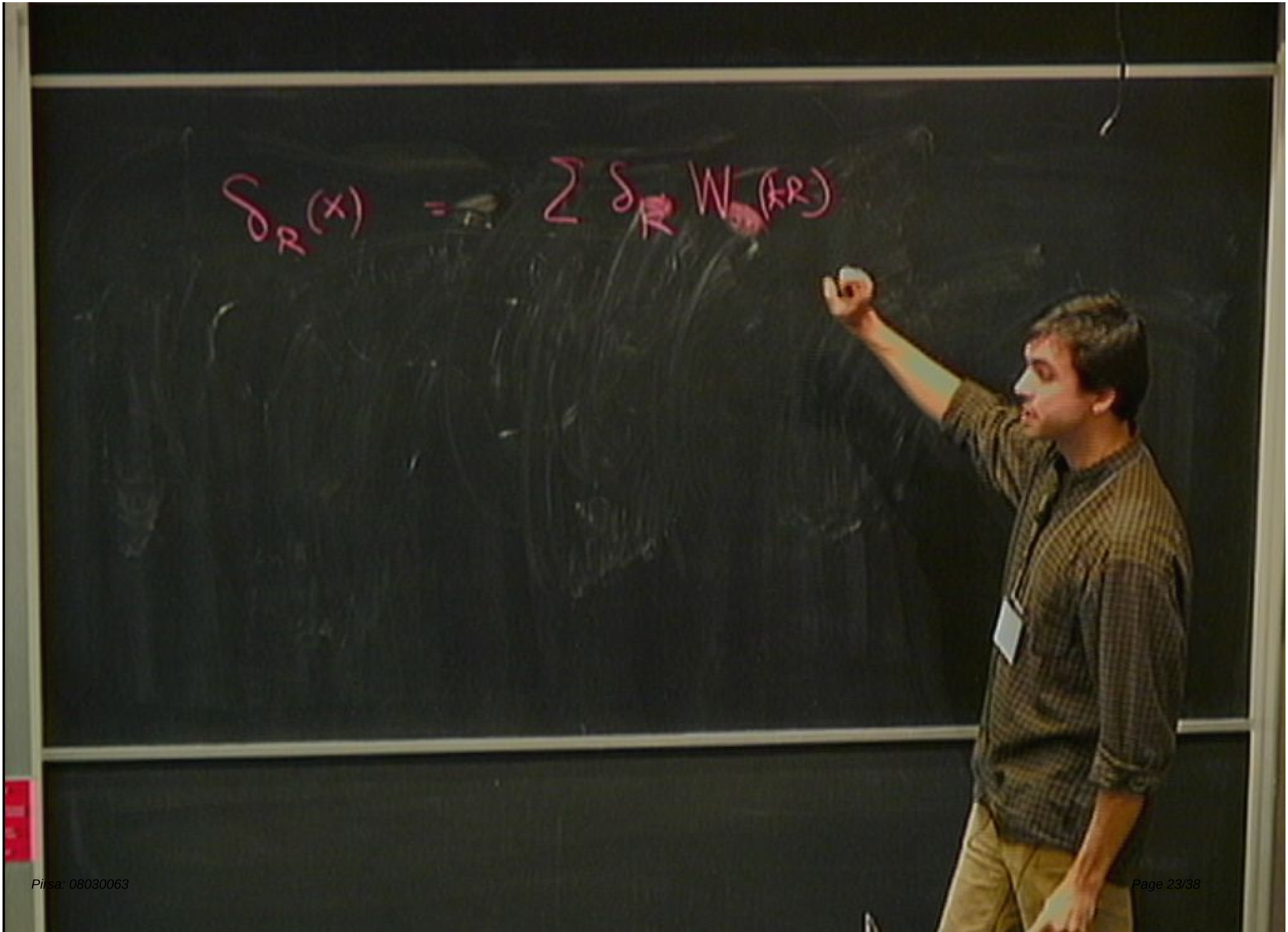
$$f(m,\delta(z))\,dm = \frac{m\, n(m,\delta(z))\,dm}{\rho = \int m\, n(m)\,dm}$$

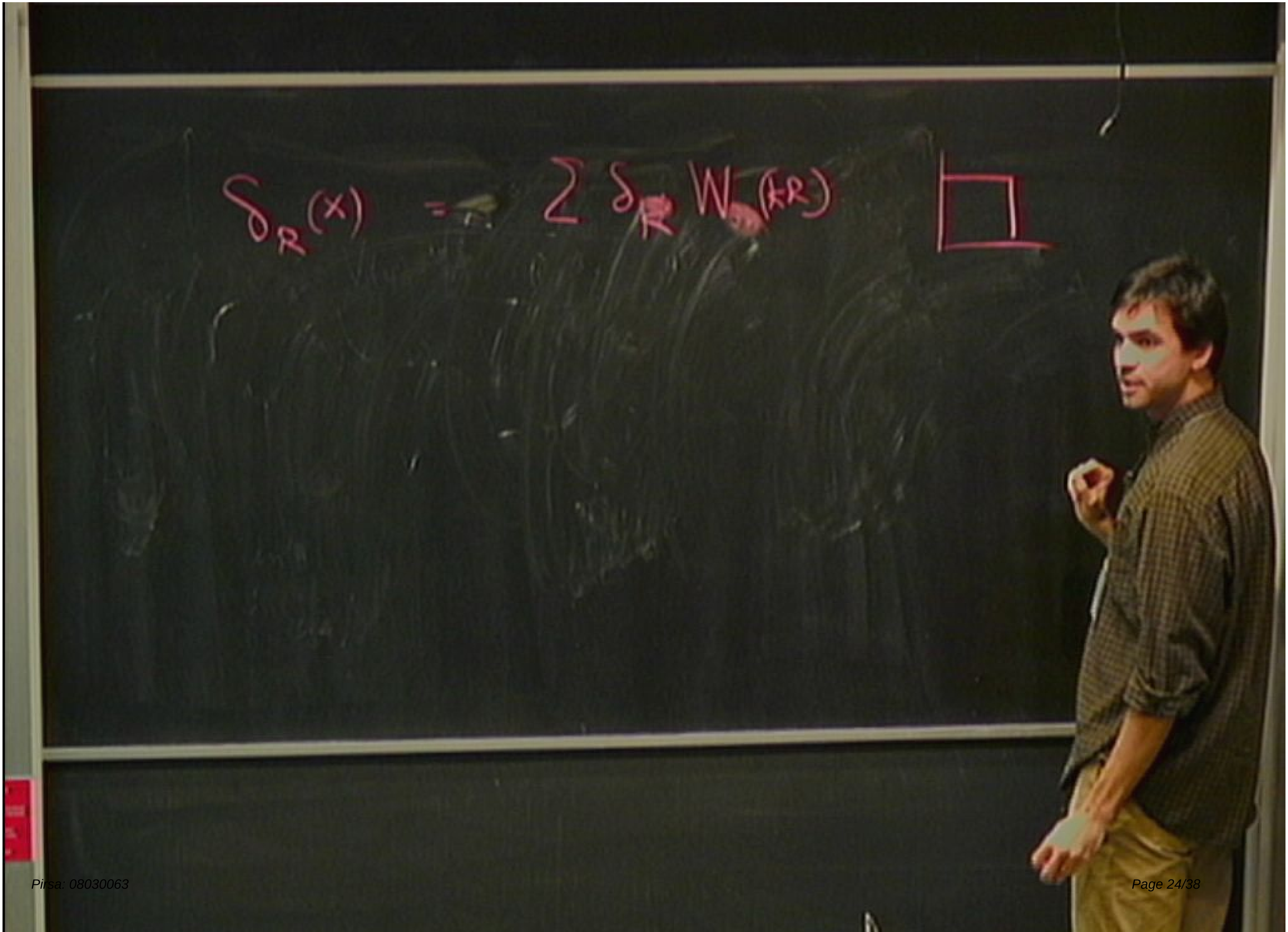

m = ρV(1+δ_c)
(Bond et al 91)
δ_c
δ_in
f(m, δ(z)) dm
= m n(m, δ(z)) dm / ρ ∫ m n(m) dm
V
m
M
V



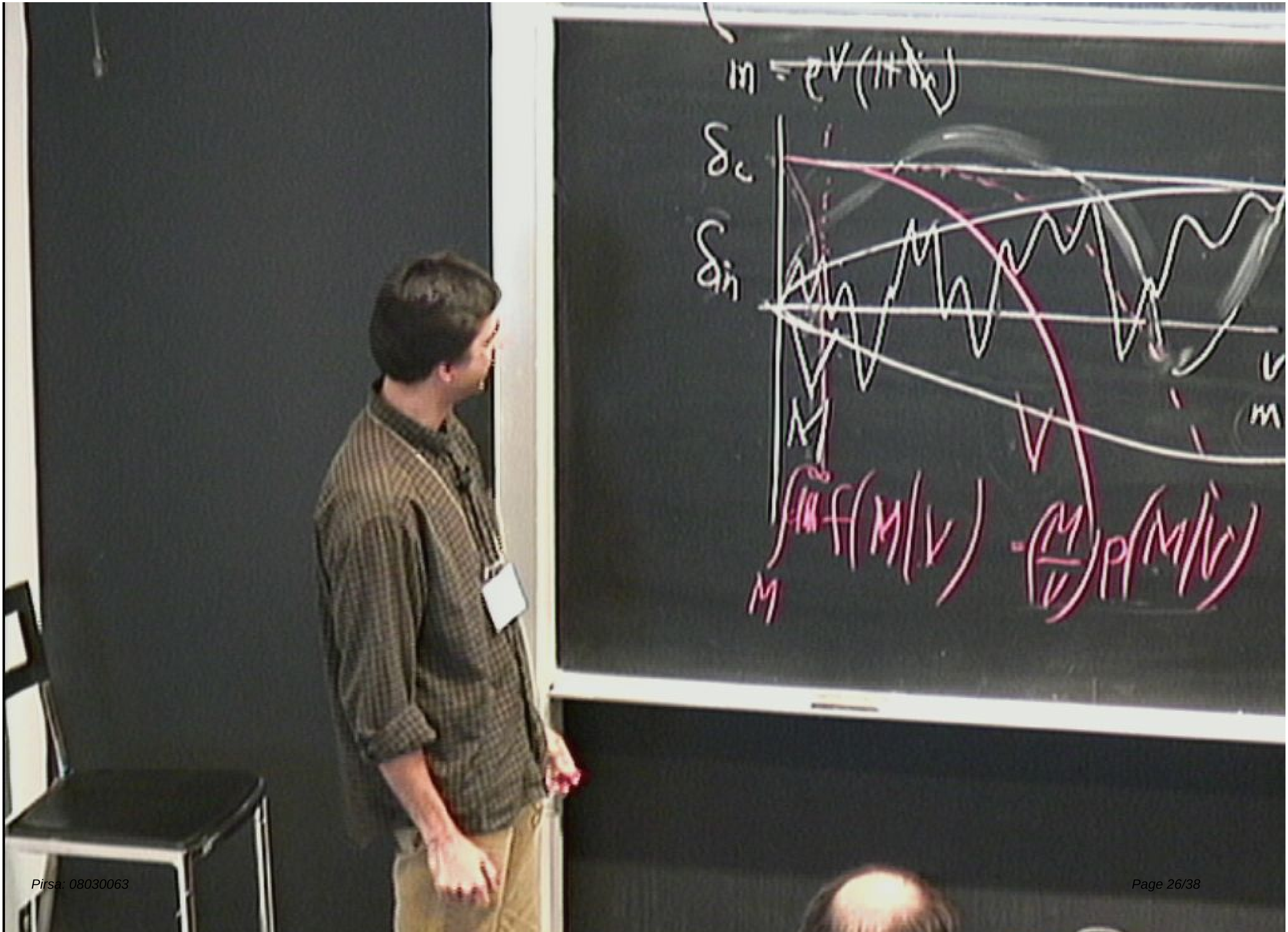
(Bond et al 91)
δc
δin
M
V
v
m
f(M|V) = (M/V) p(M|V)
f(m, δc(t)) dm

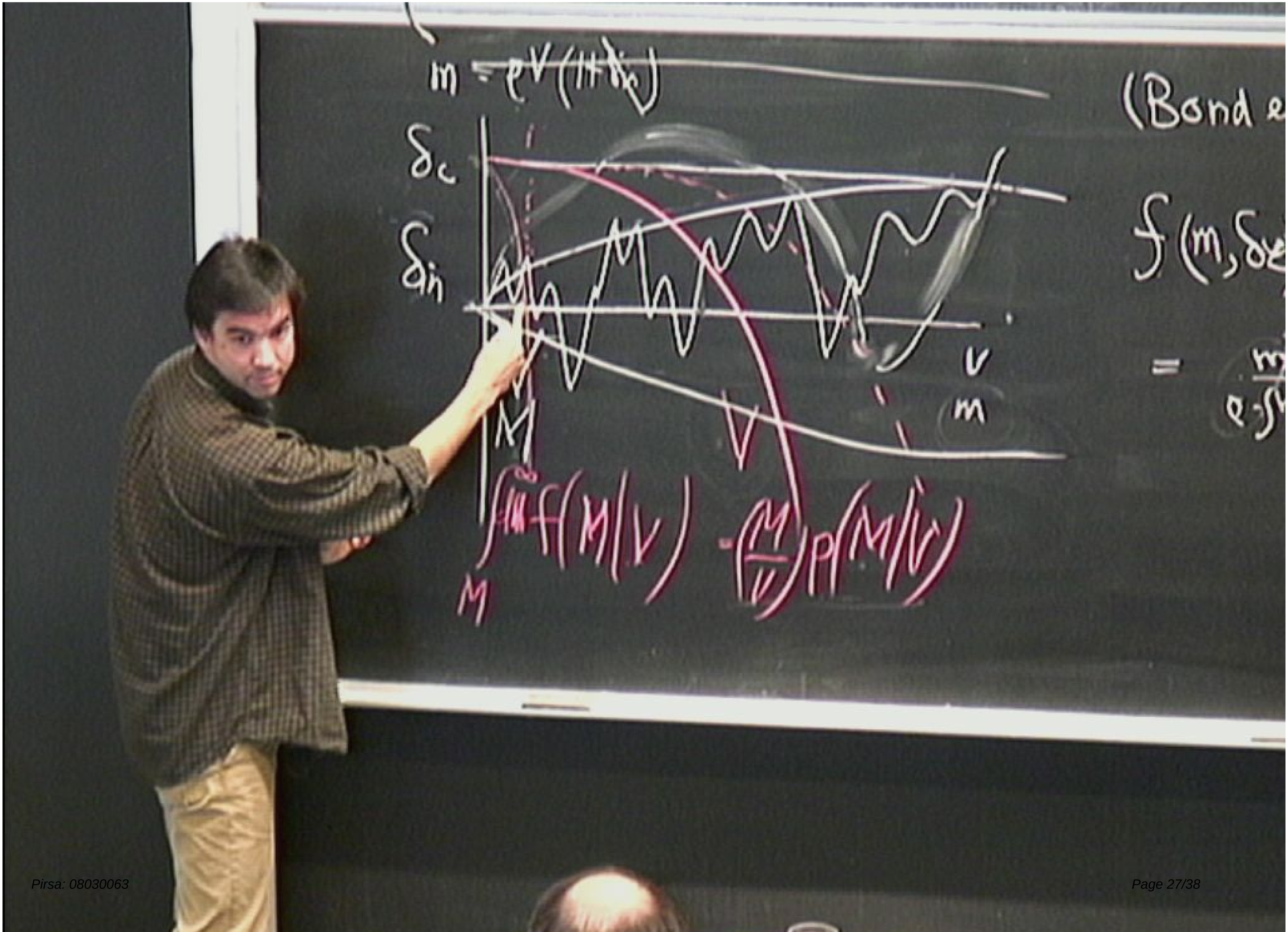

$\delta_R(x)$

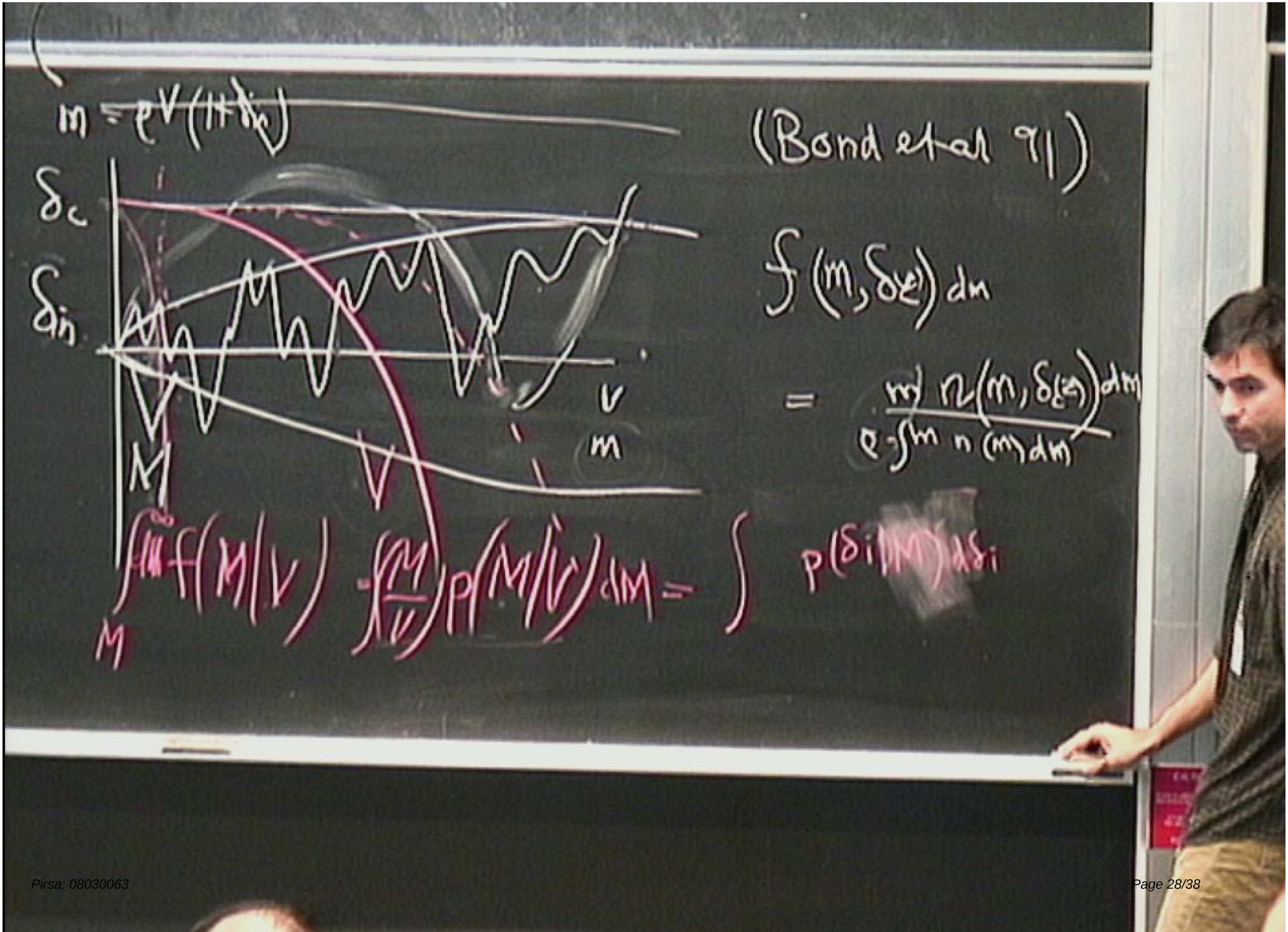

$\delta_R(x) = \sum \delta_R W(x-R)$

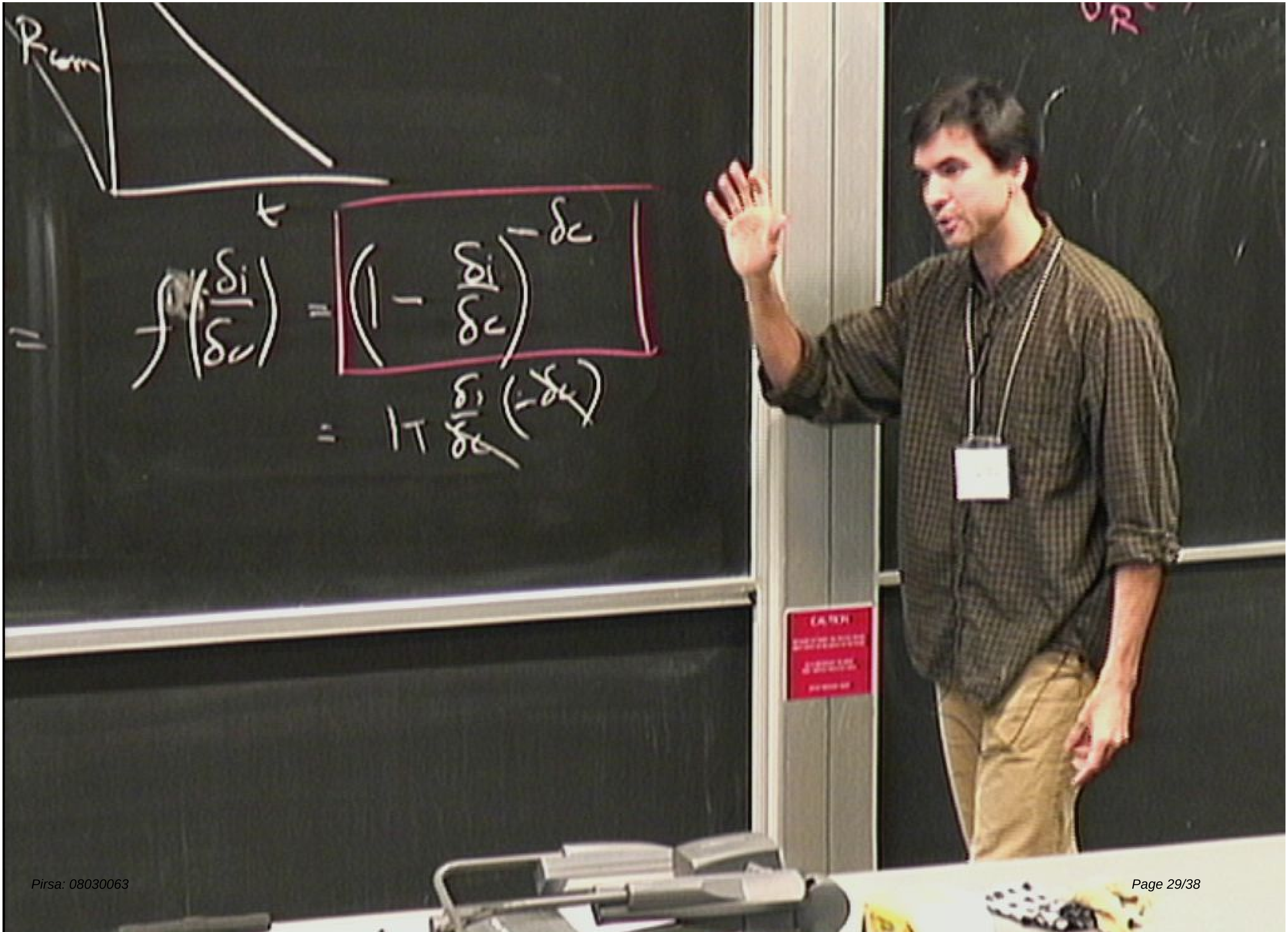

$\delta_R(x) = \sum \delta_R W(kR)$

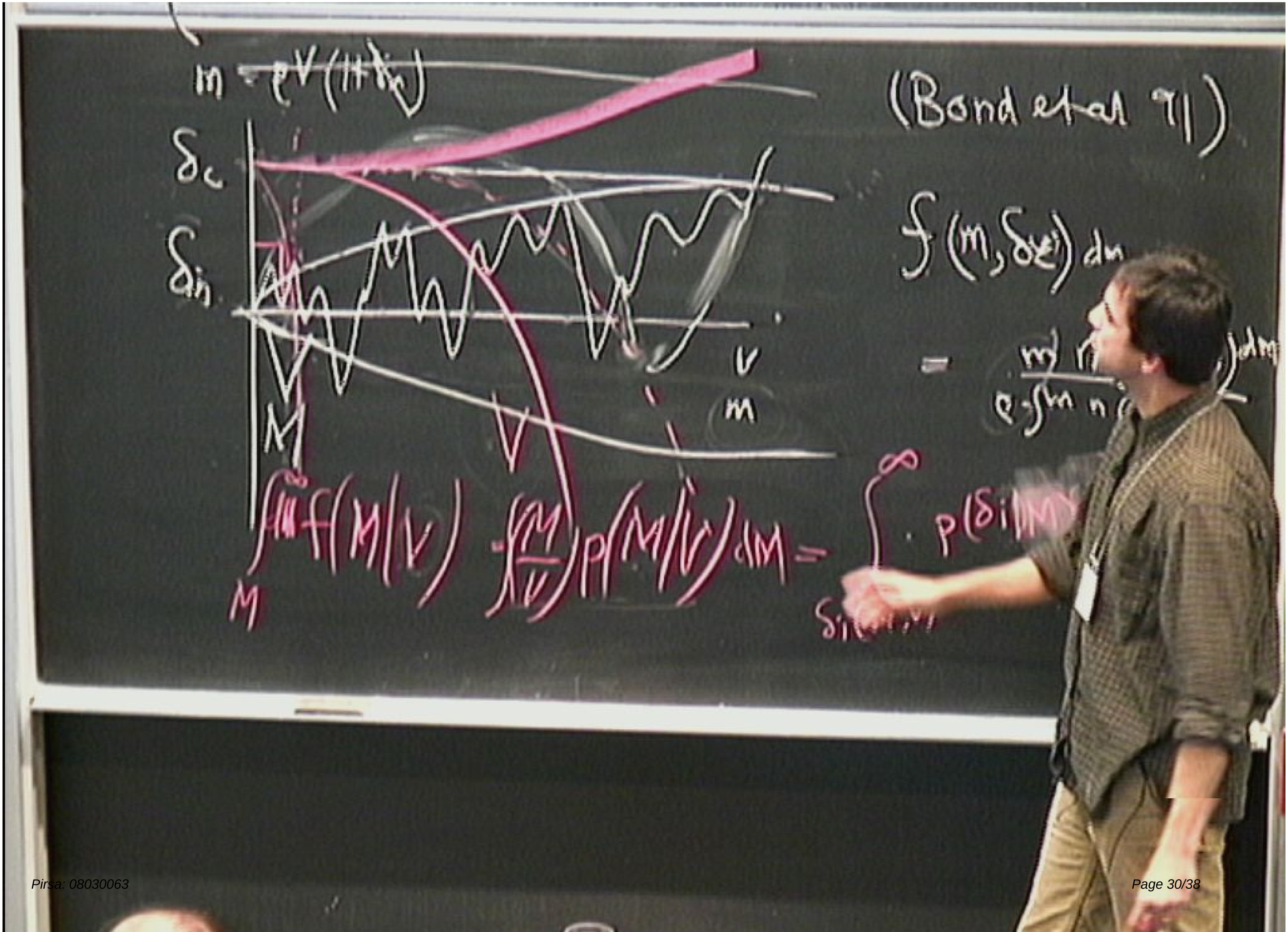
$$\delta_R(x) = \sum \delta_R W(kR)$$

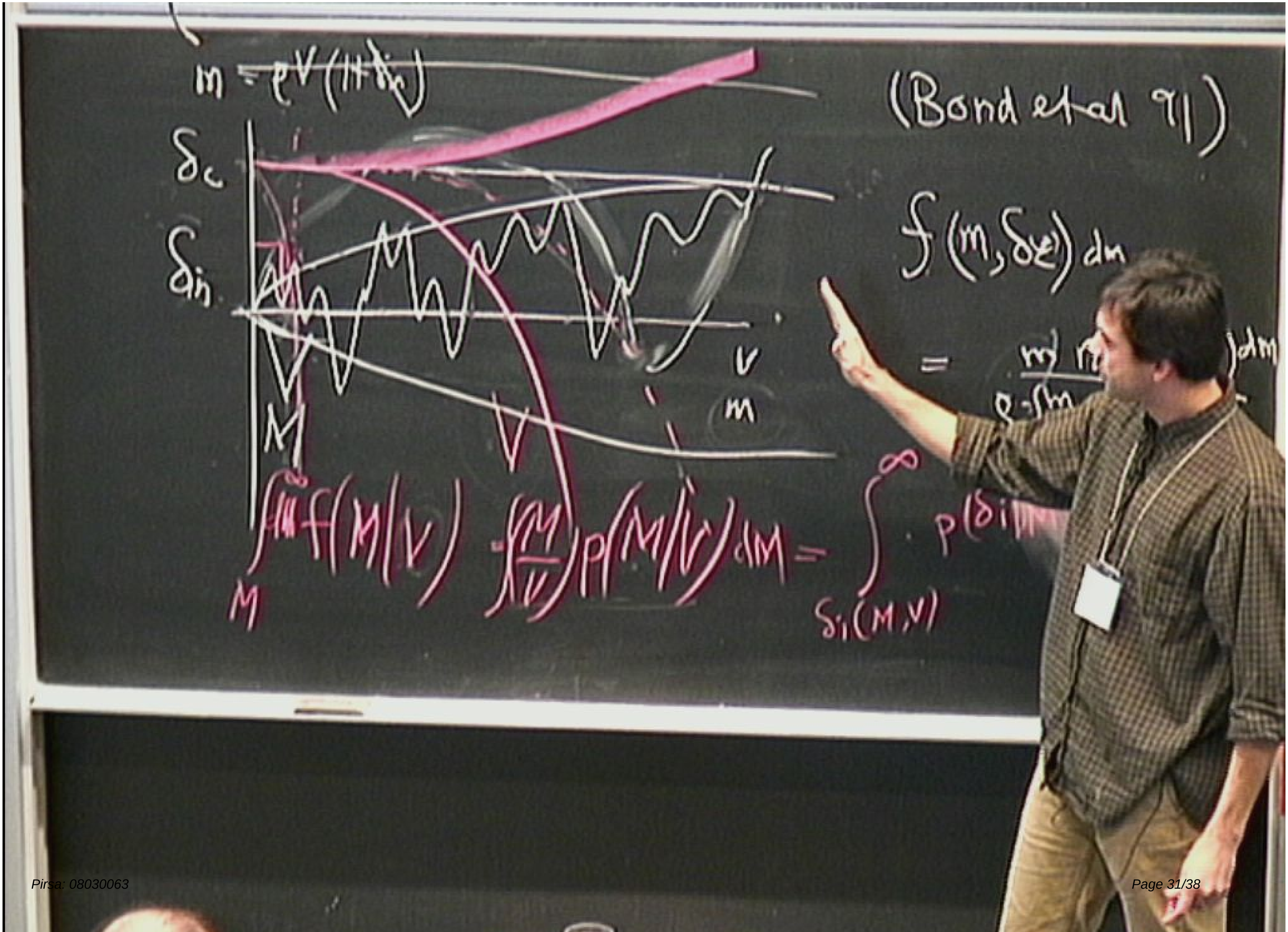


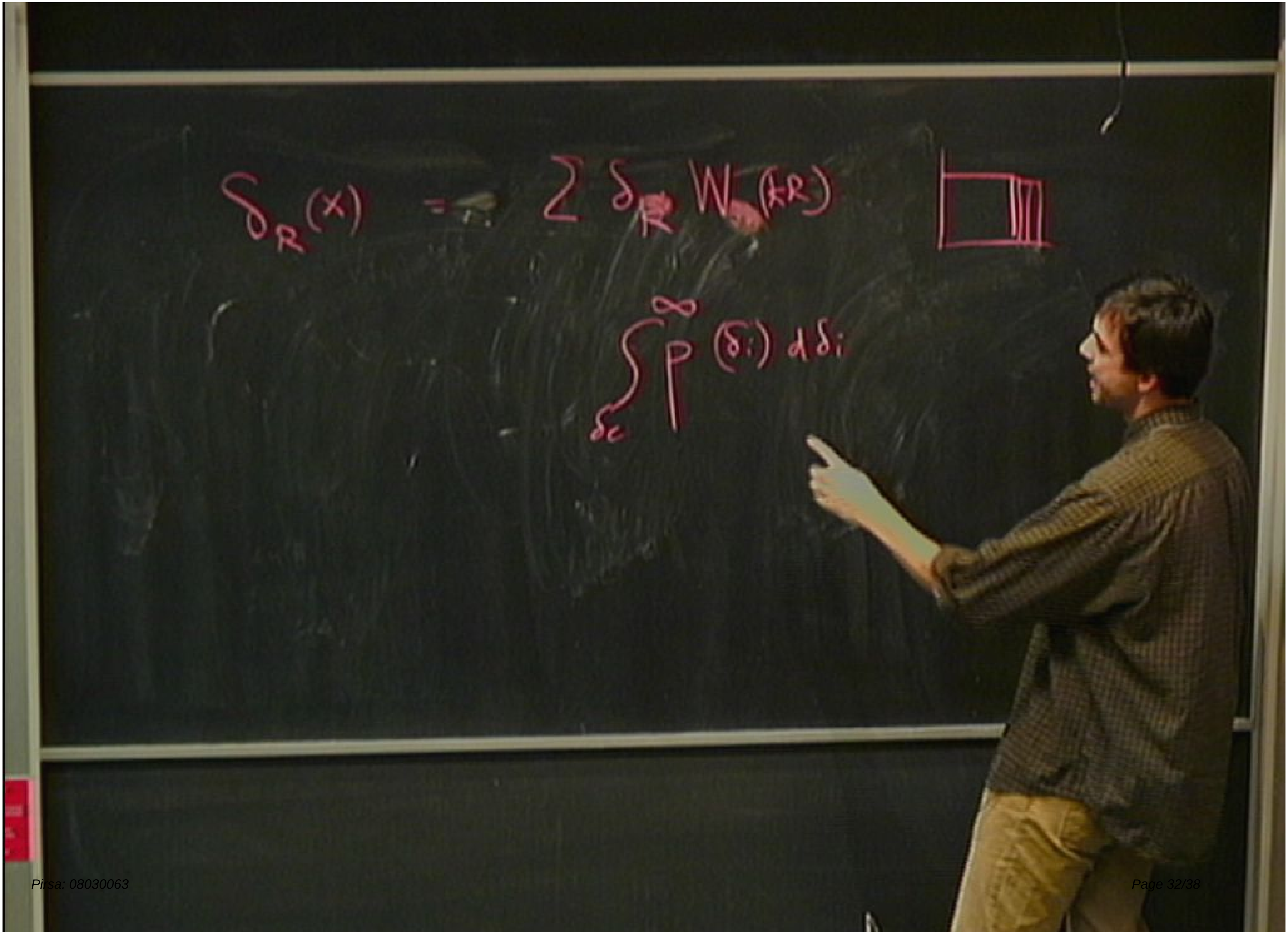

(Bond e


(Bond et al 91)
δc
δin
M
V
m
=

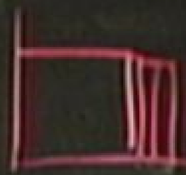

t
f(δi/δc) = (1 − δi/δc)^−δc


(Bond et al 91)
δc
δin
V
m
M

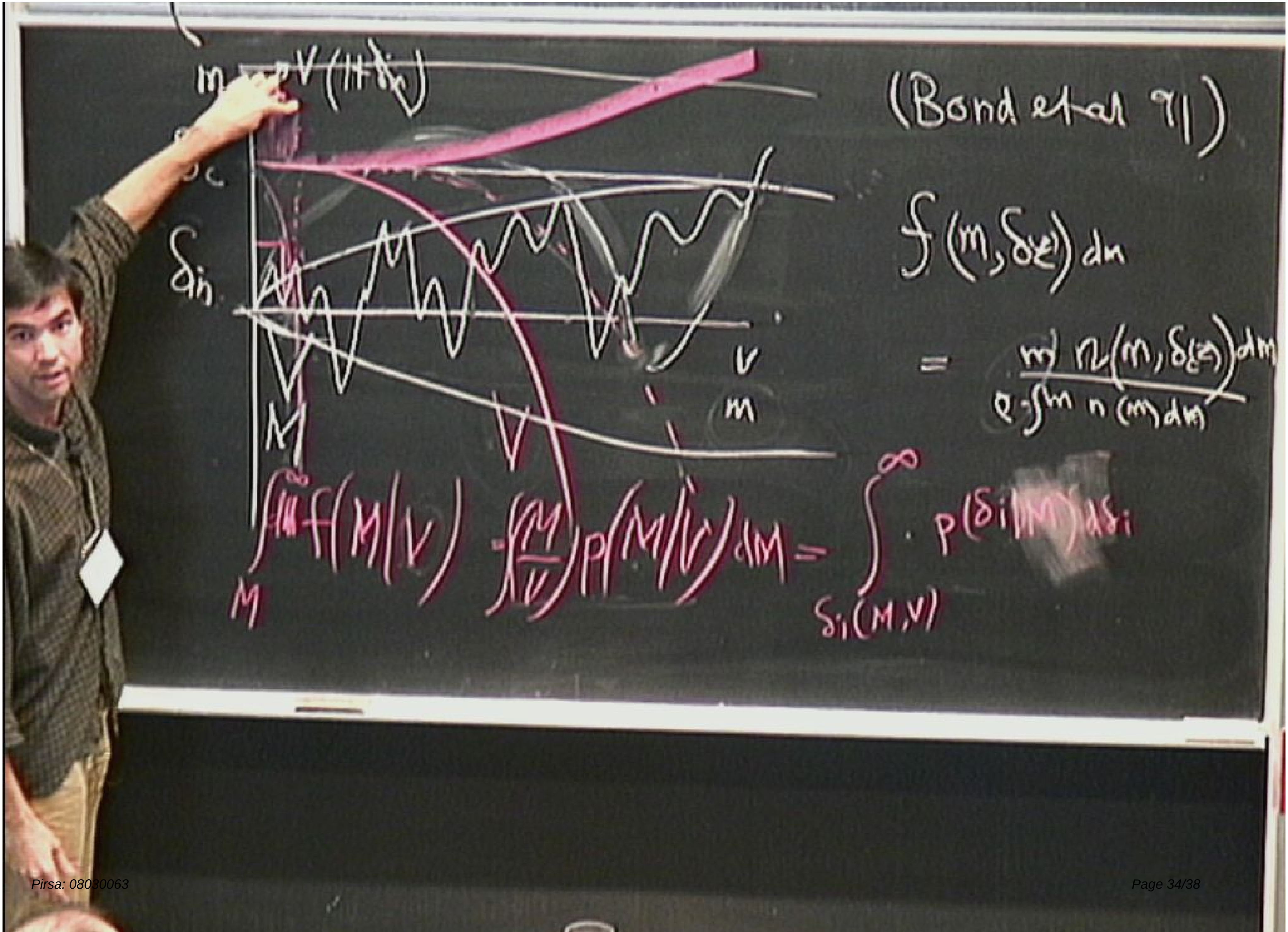

(Bond et al 91)
v
m
M

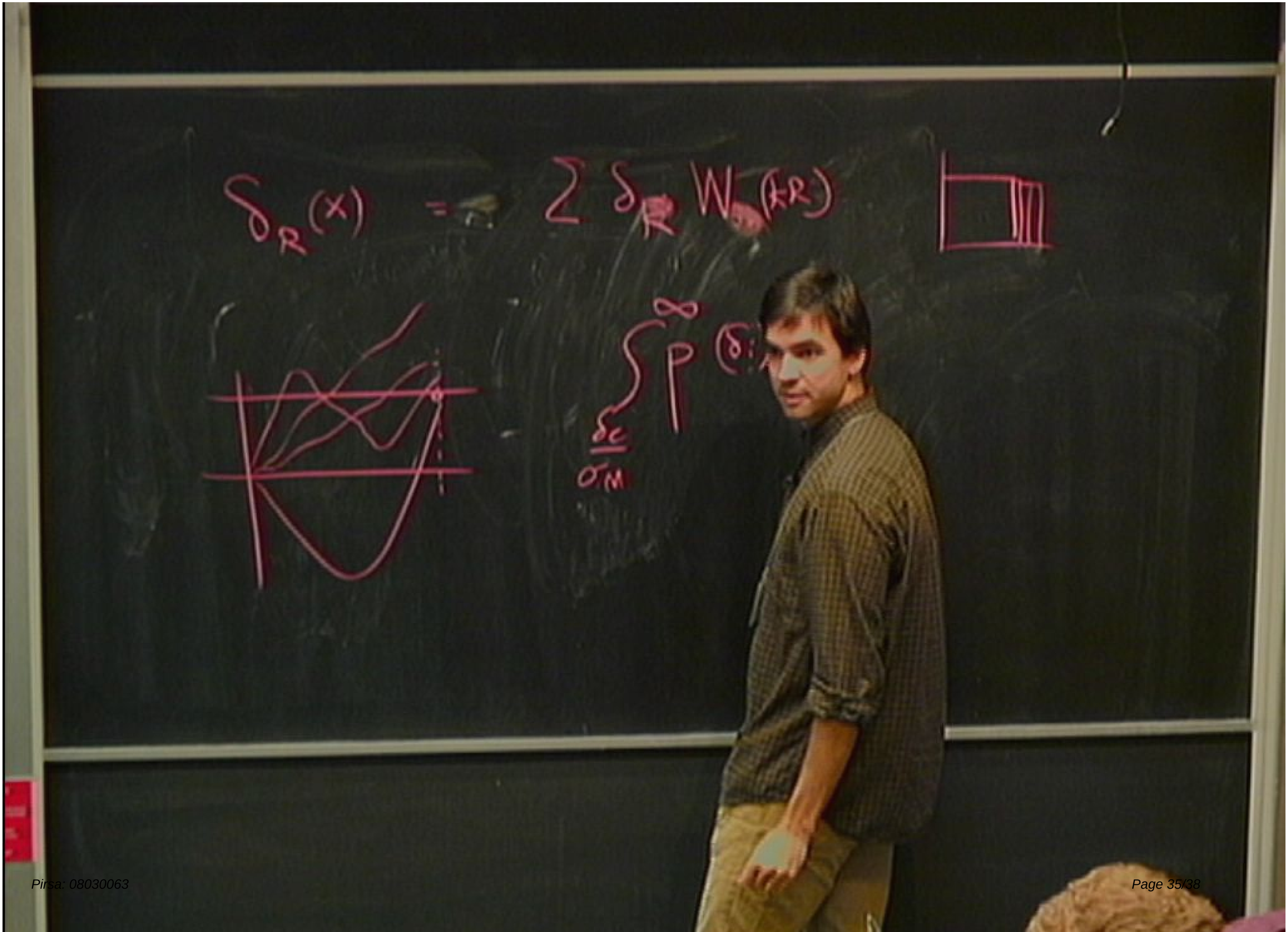

$\delta_R(x) = \sum \delta_R W(kR)$
$\int_{\delta_c}^{\infty} p(\delta_i)\, d\delta_i$

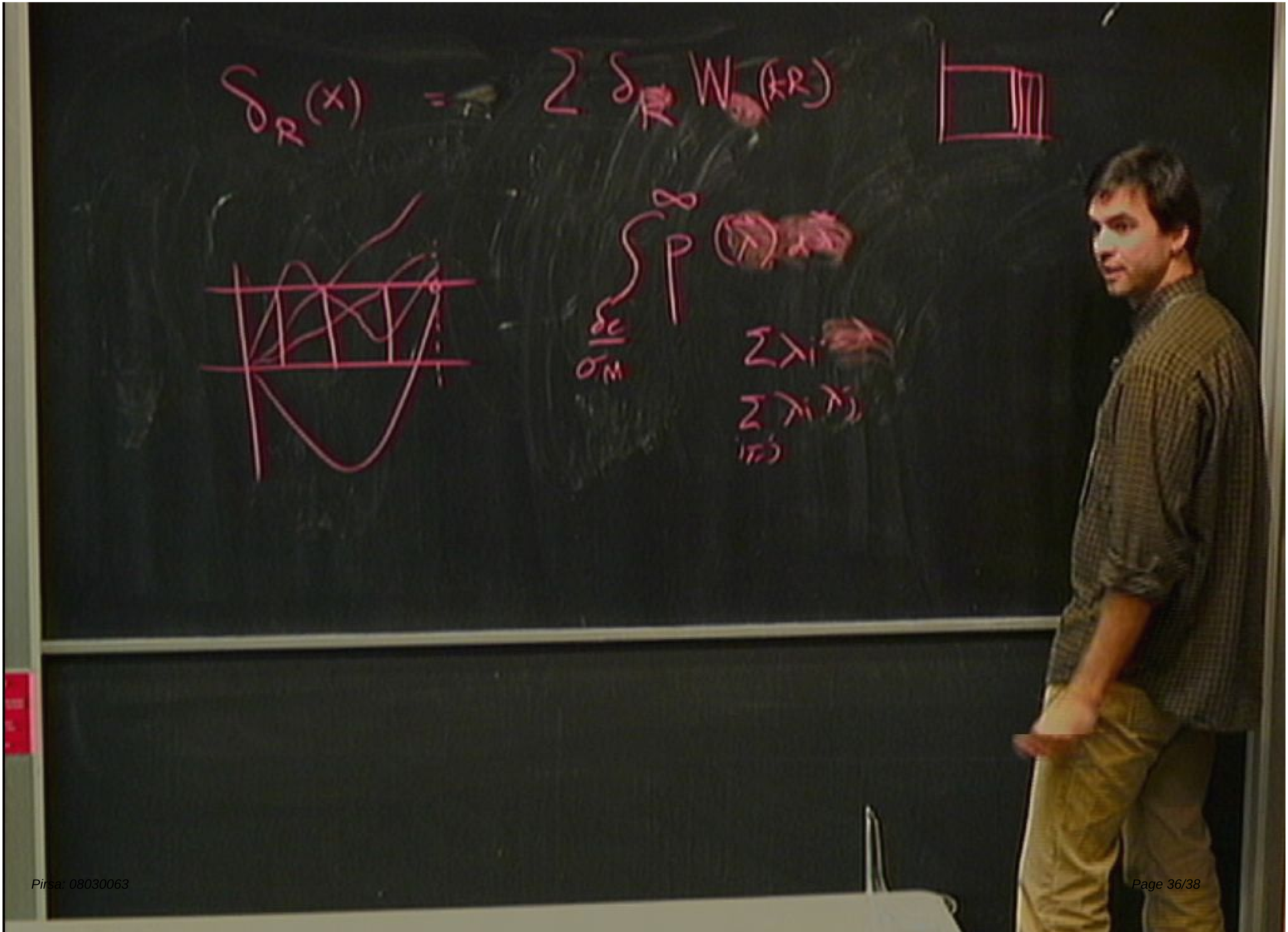
$$\delta_R(x) = \sum \delta_R W(kR)$$

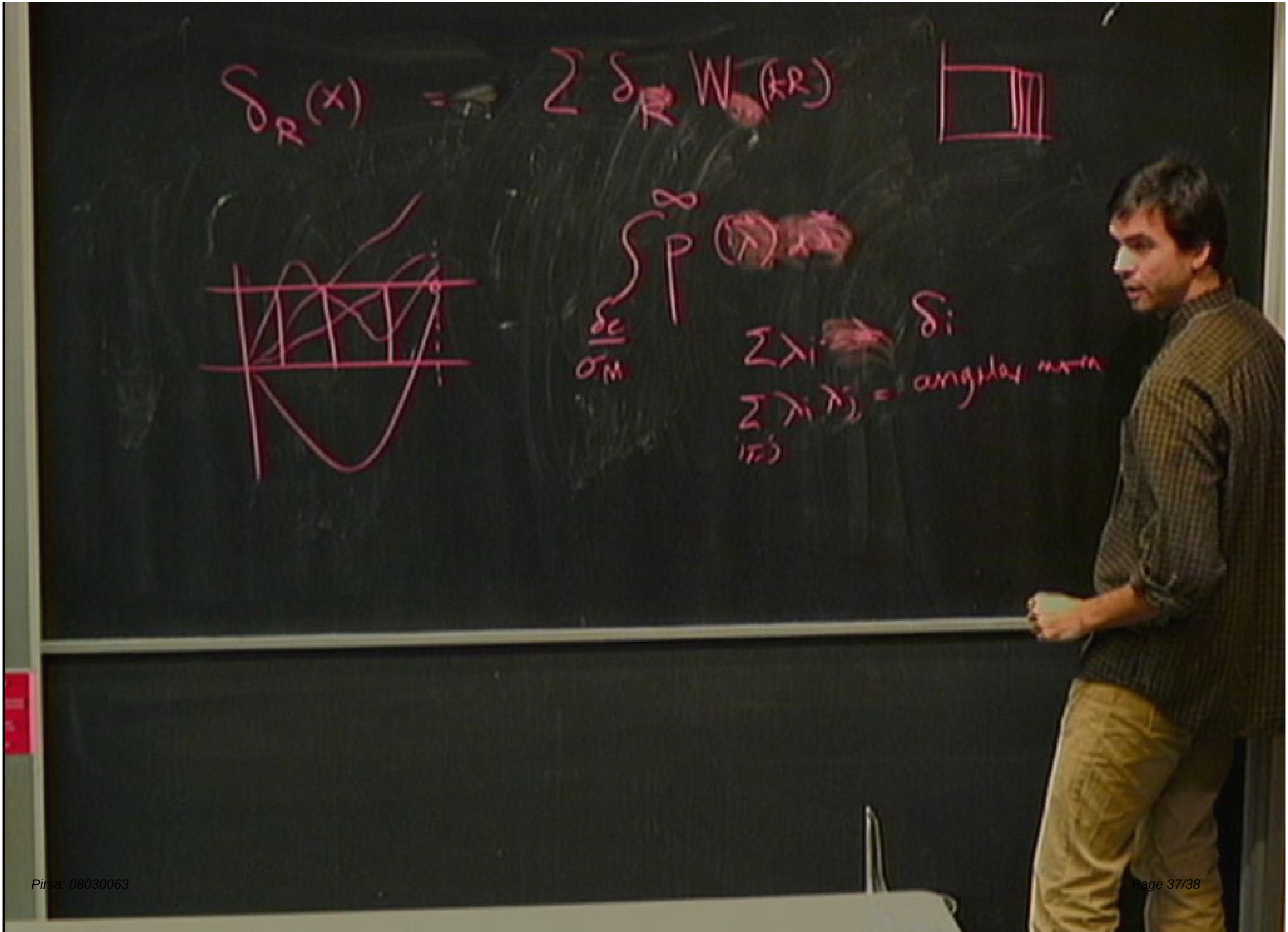


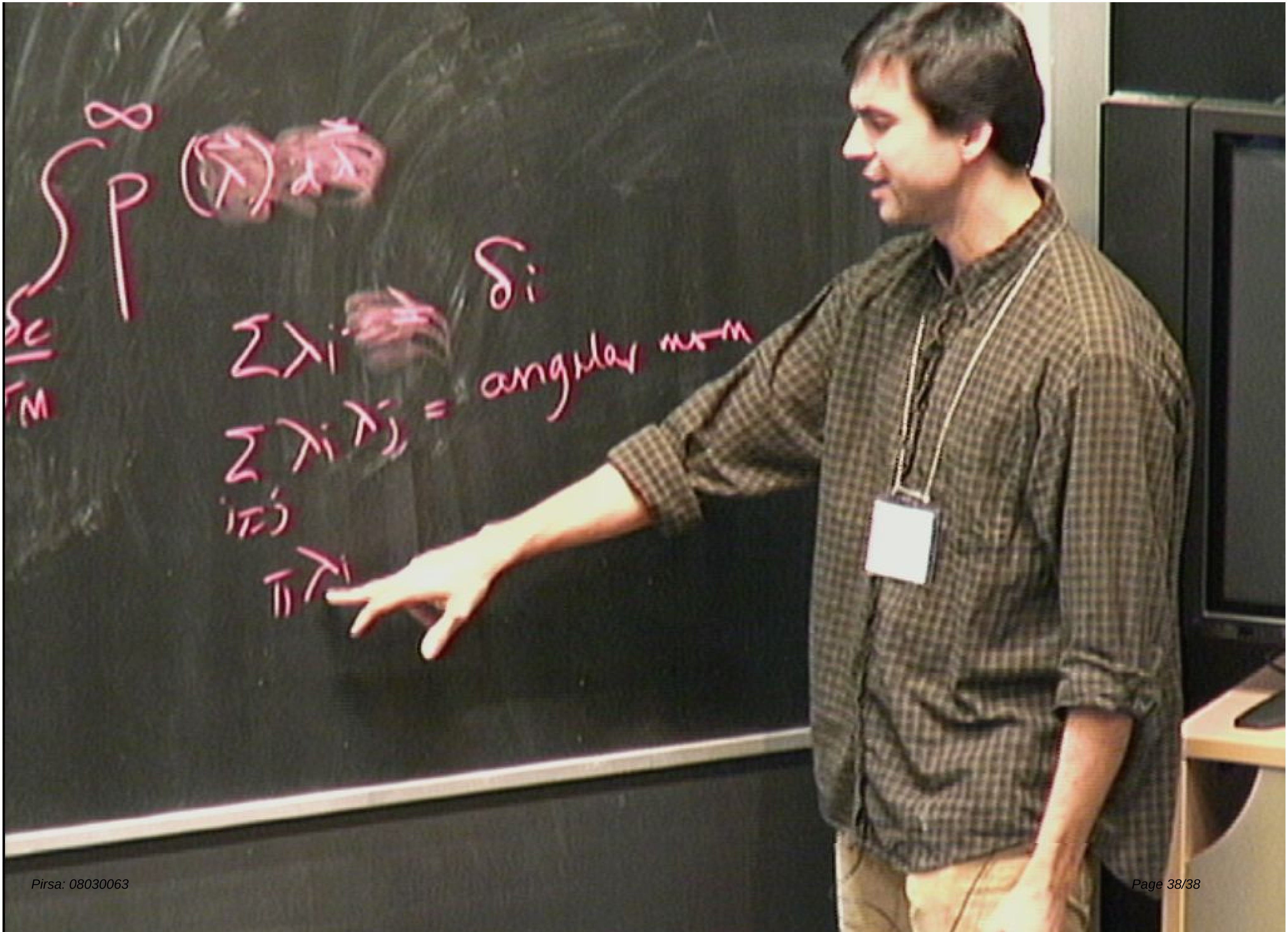
$$\int_{\delta_c/\sigma_M}^{\infty} P(\delta_i)\, d\delta_i$$


(Bond et al 91)
f(m, δ(z)) dm
= m n(m, δ(z)) dm / ρ ∫ m n(m) dm
V
m
M


$\delta_R(x) = \sum \delta_k W(kR)$


δR(x) =
Σ λi
Σ λi λj
i≠j


= angular mom



$\int^{\infty} P$
δ_i
$\sum \lambda_i$
$\sum \lambda_i \lambda_j =$ angular mom
$i \neq j$