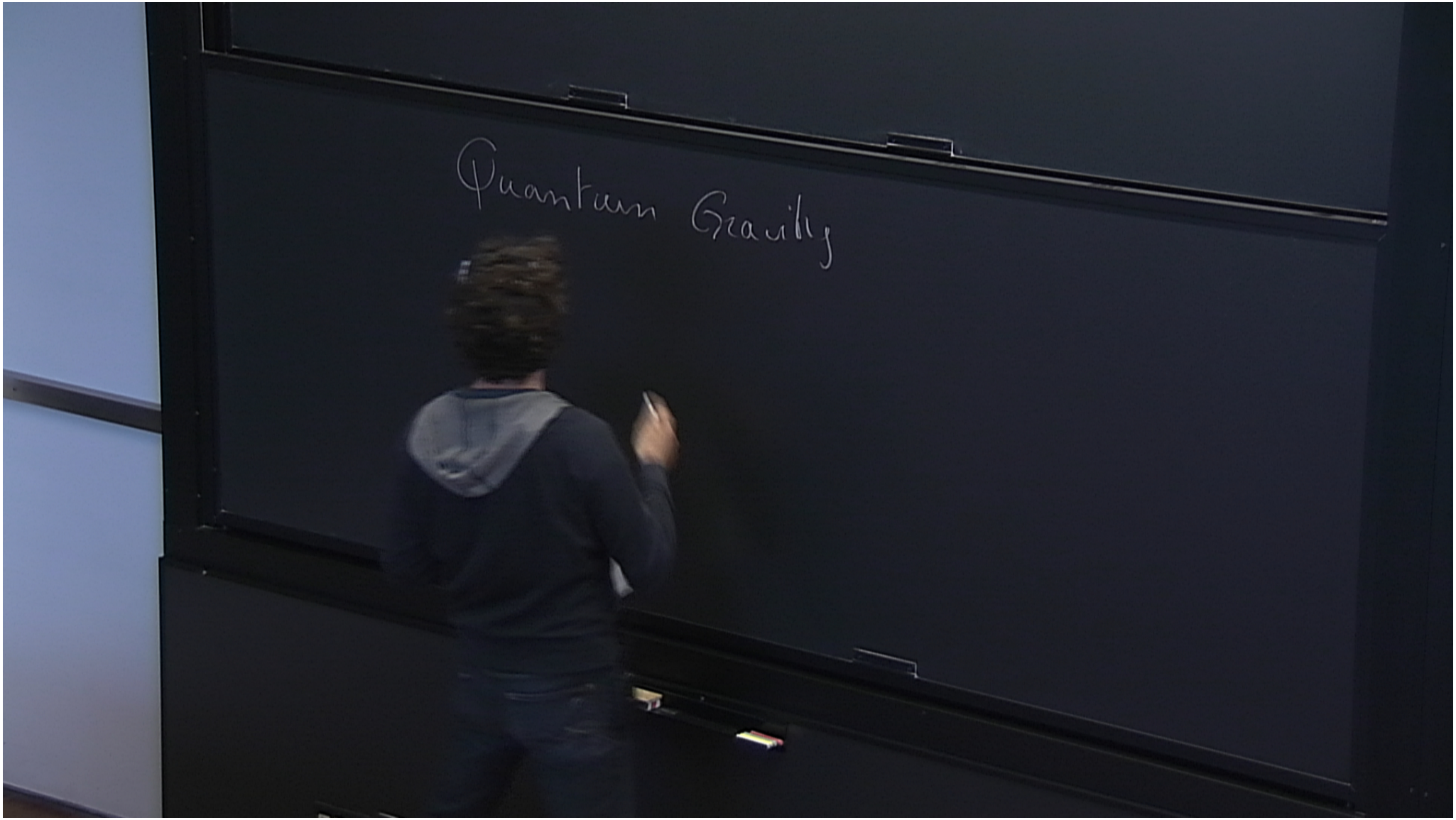
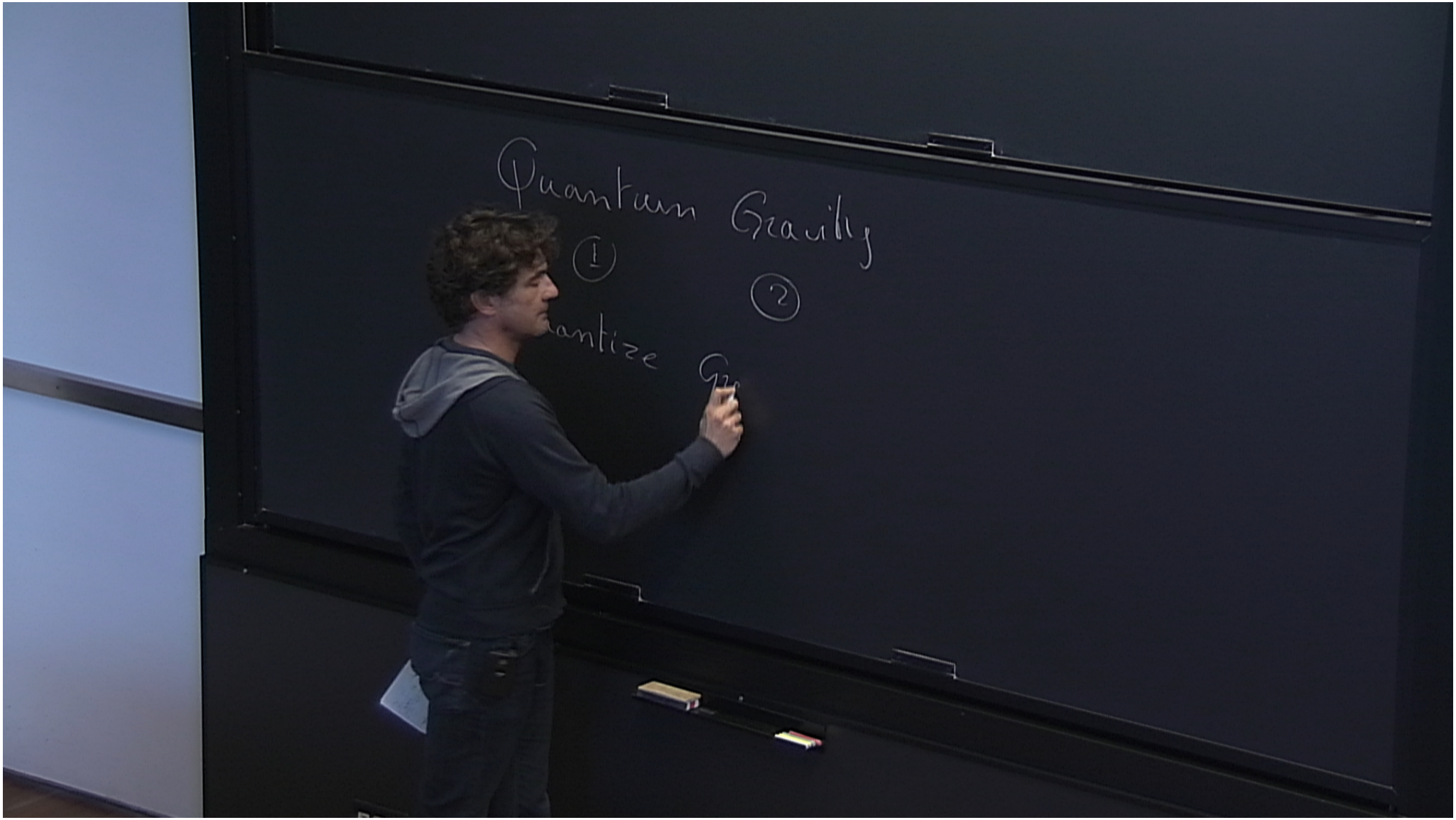
Title: What About Gravitizing Quantum Mechanics?

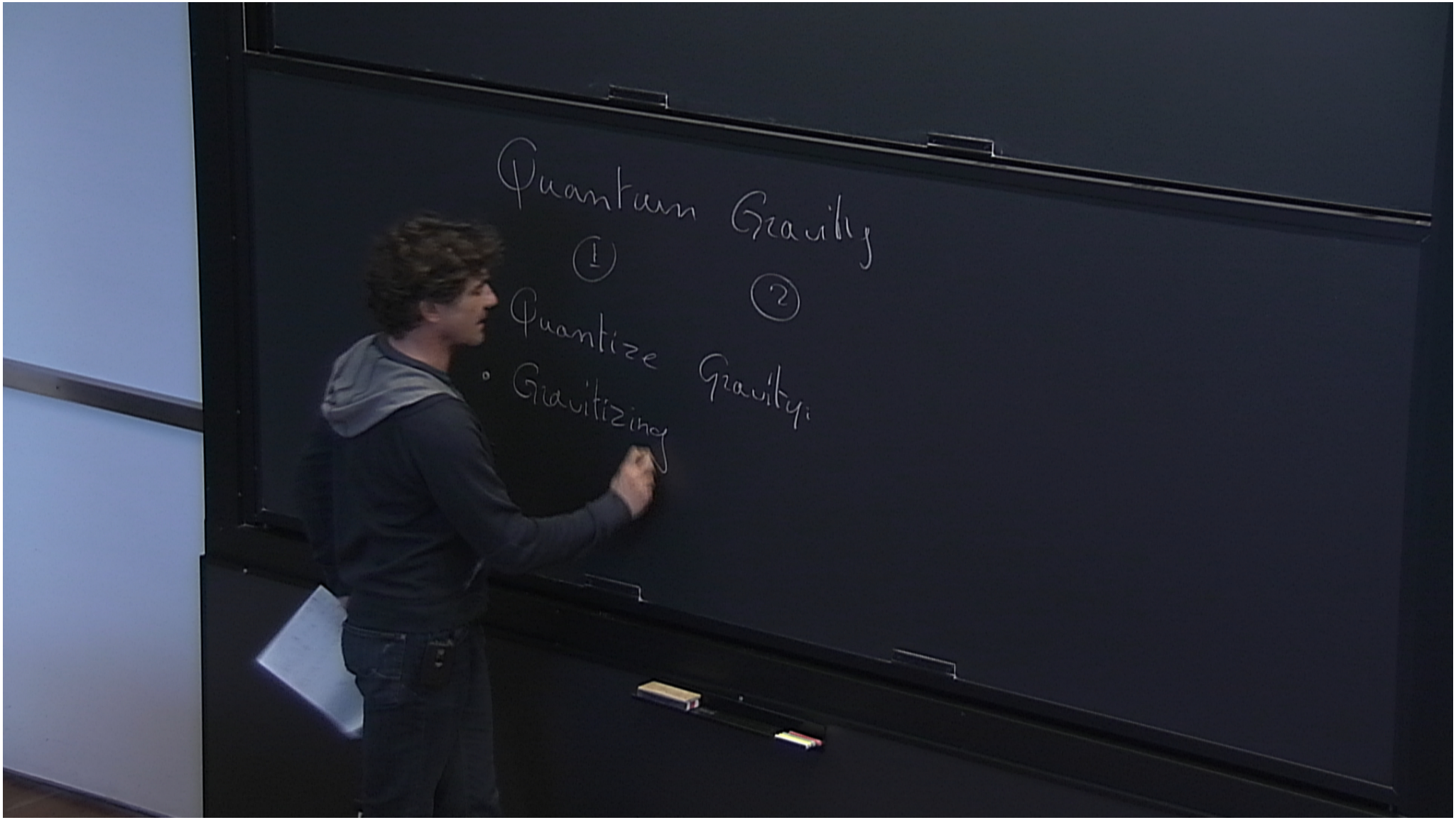
Date: May 22, 2014 01:20 PM

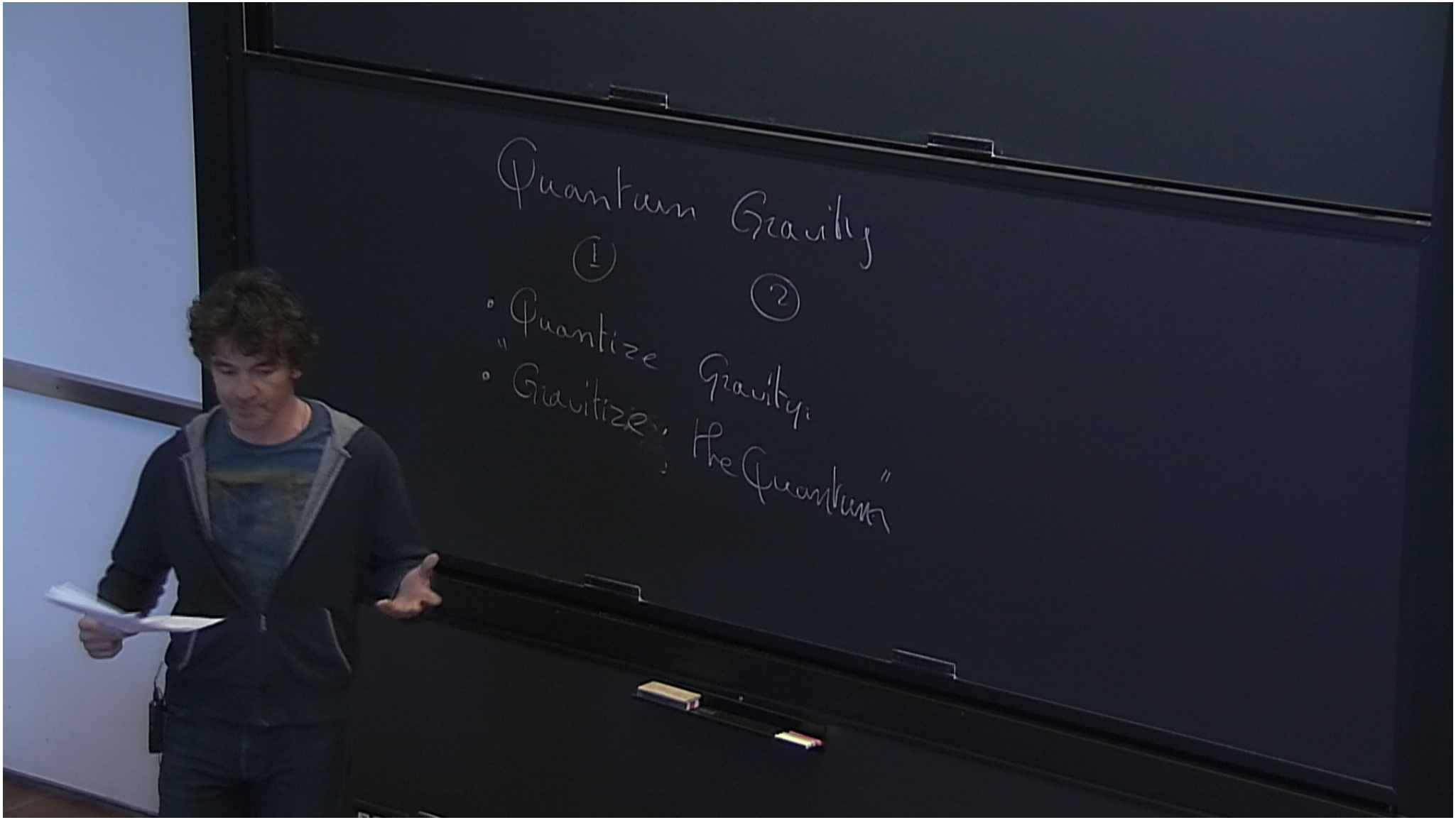
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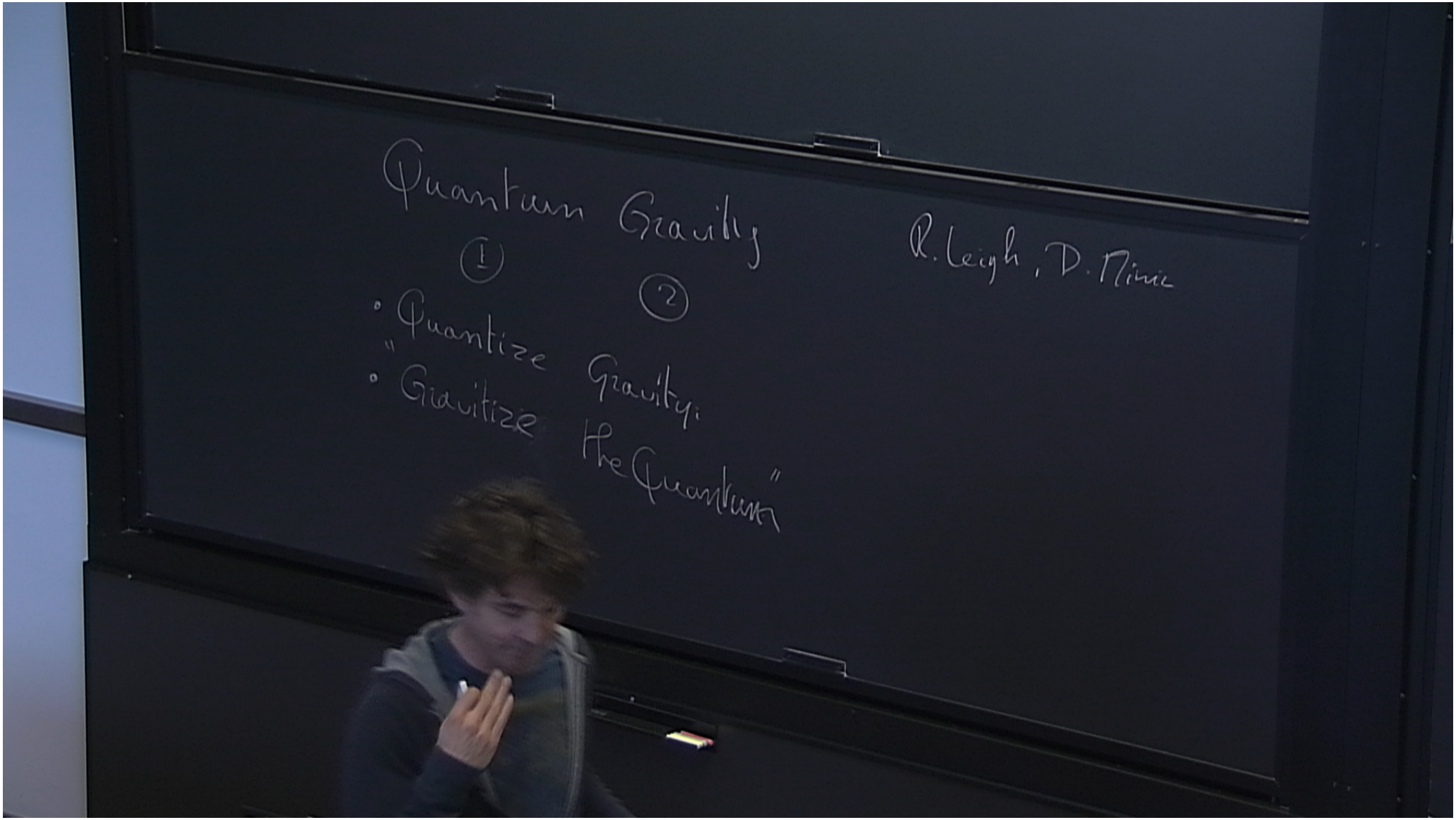
Abstract:

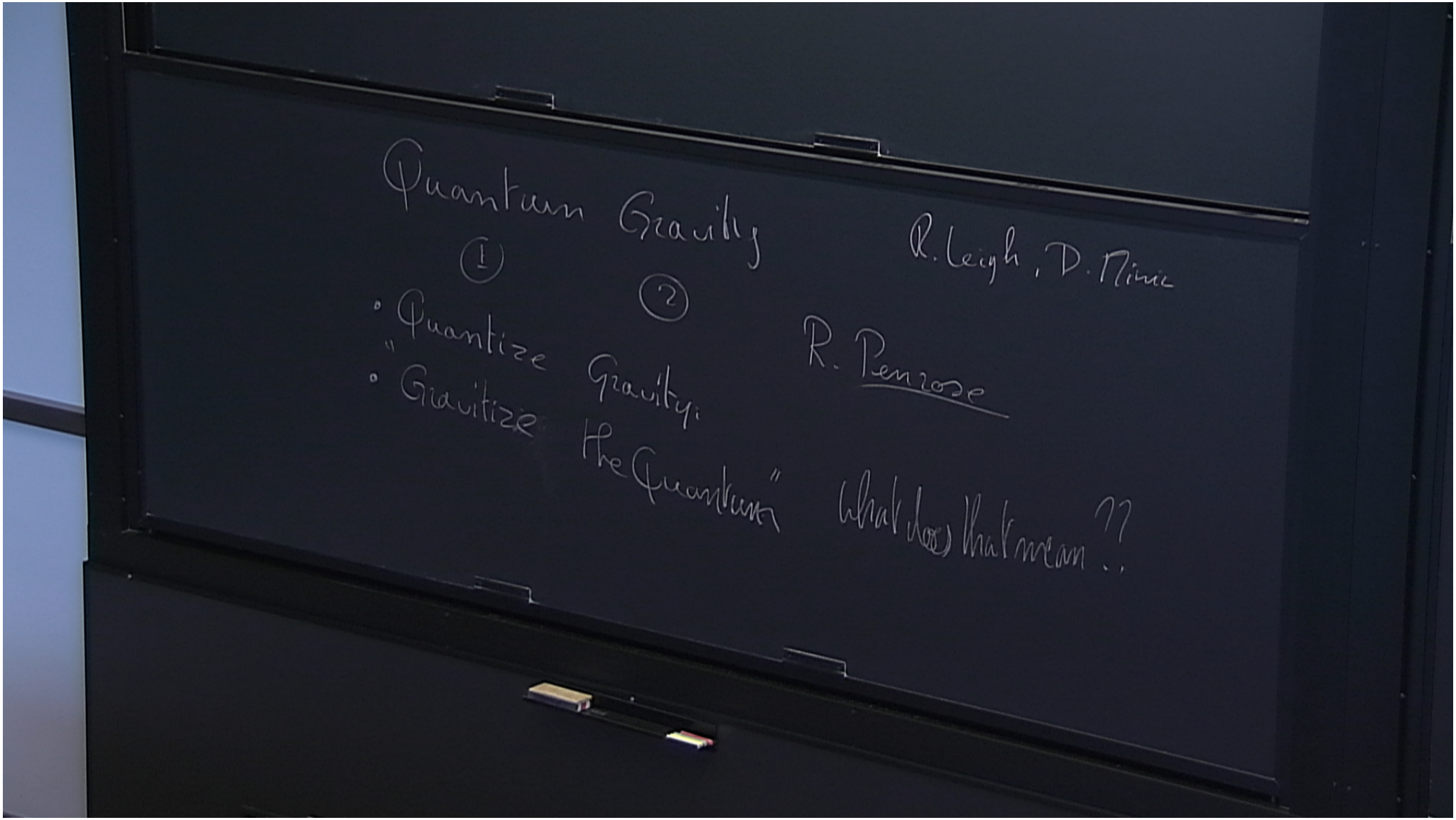

Quantum Gravity

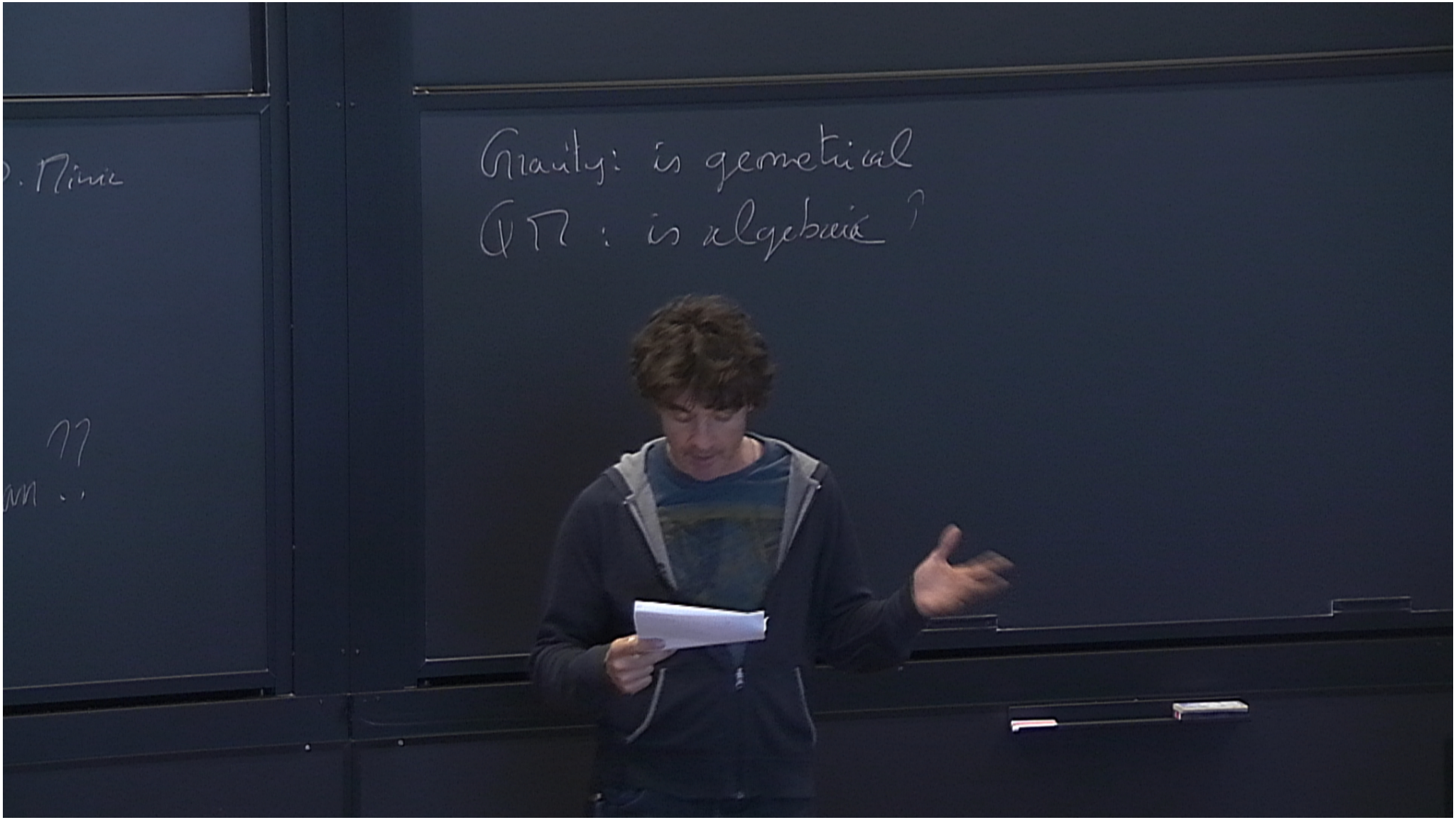

Quantum Gravity
1
2

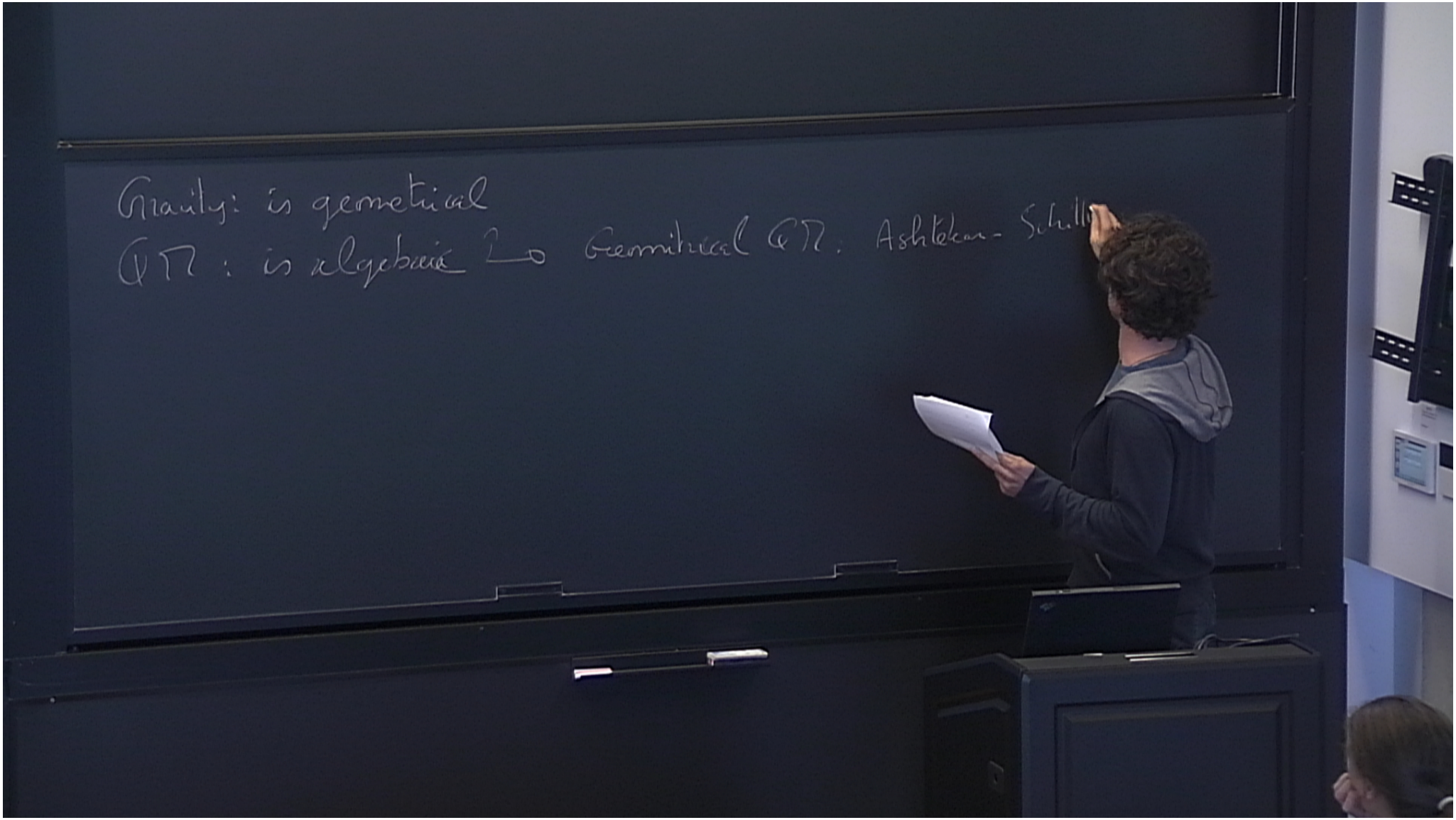

Quantum Gravity
1
2
Quantize Gravity:
Gravitizing

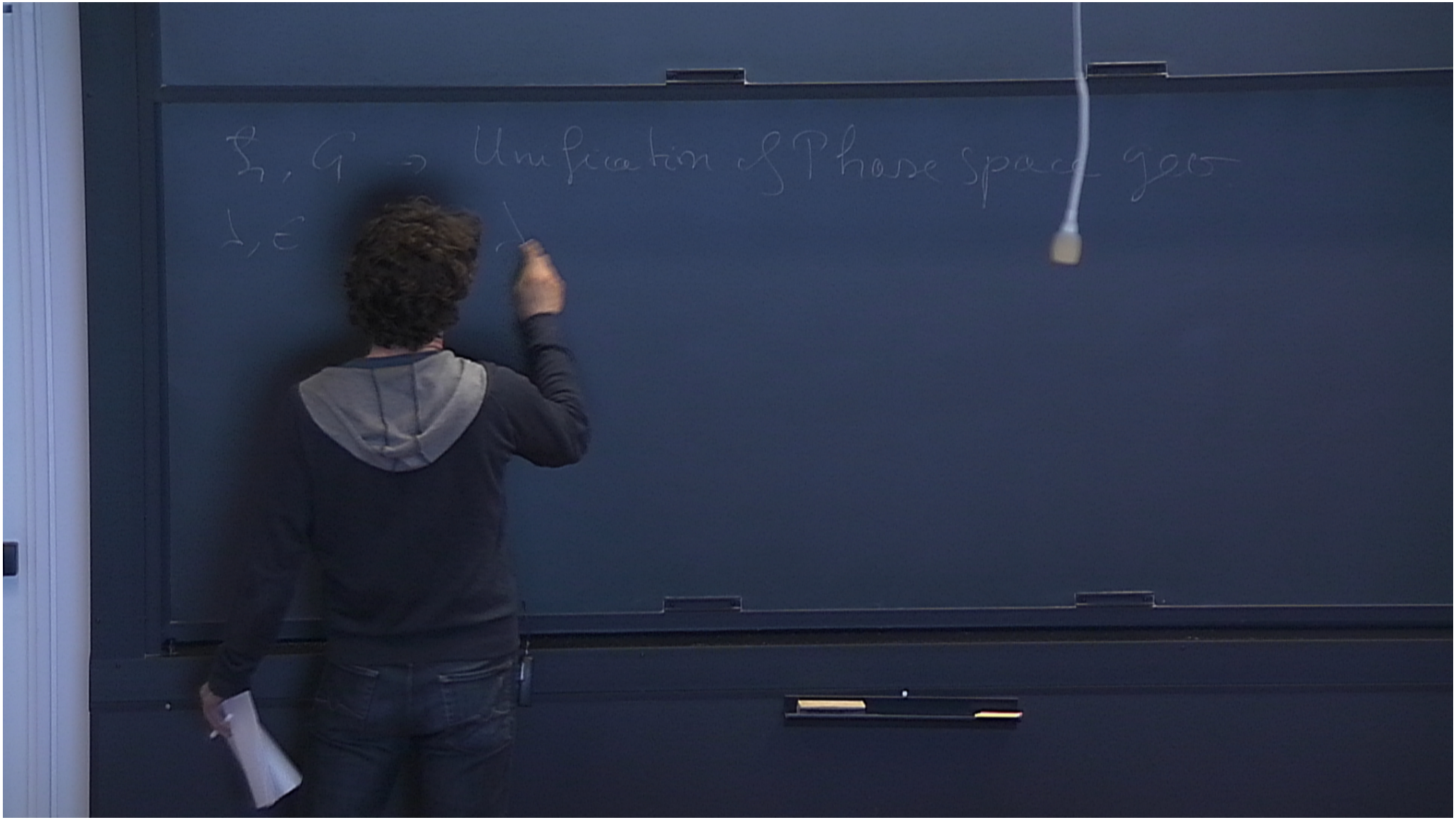

Quantum Gravity
1
2
• Quantize Gravity:
• Gravitize: the Quantum"

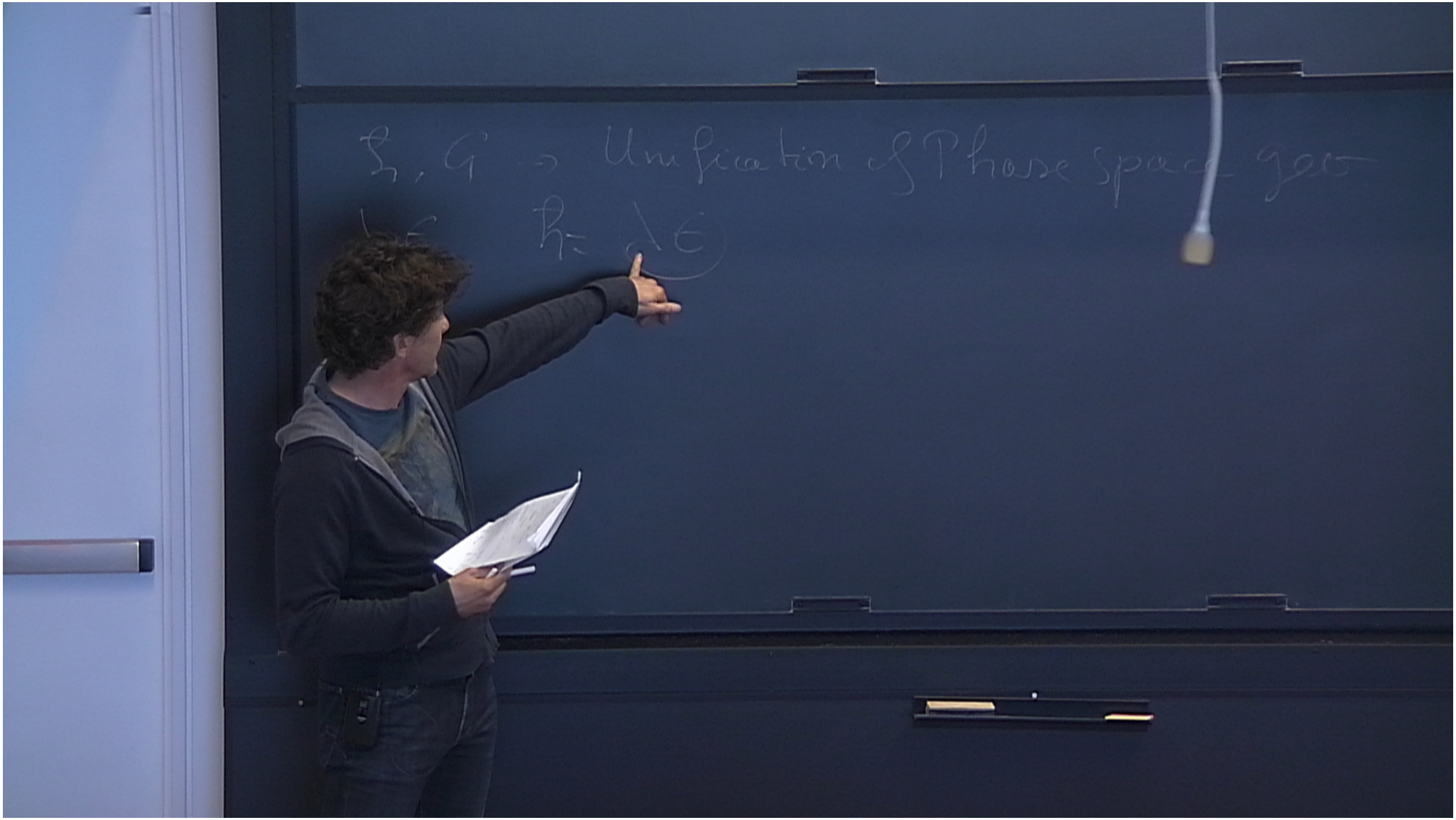

Quantum Gravity
R. Leigh, D. Minic
1
2
• Quantize Gravity:
• Gravitize the Quantum"

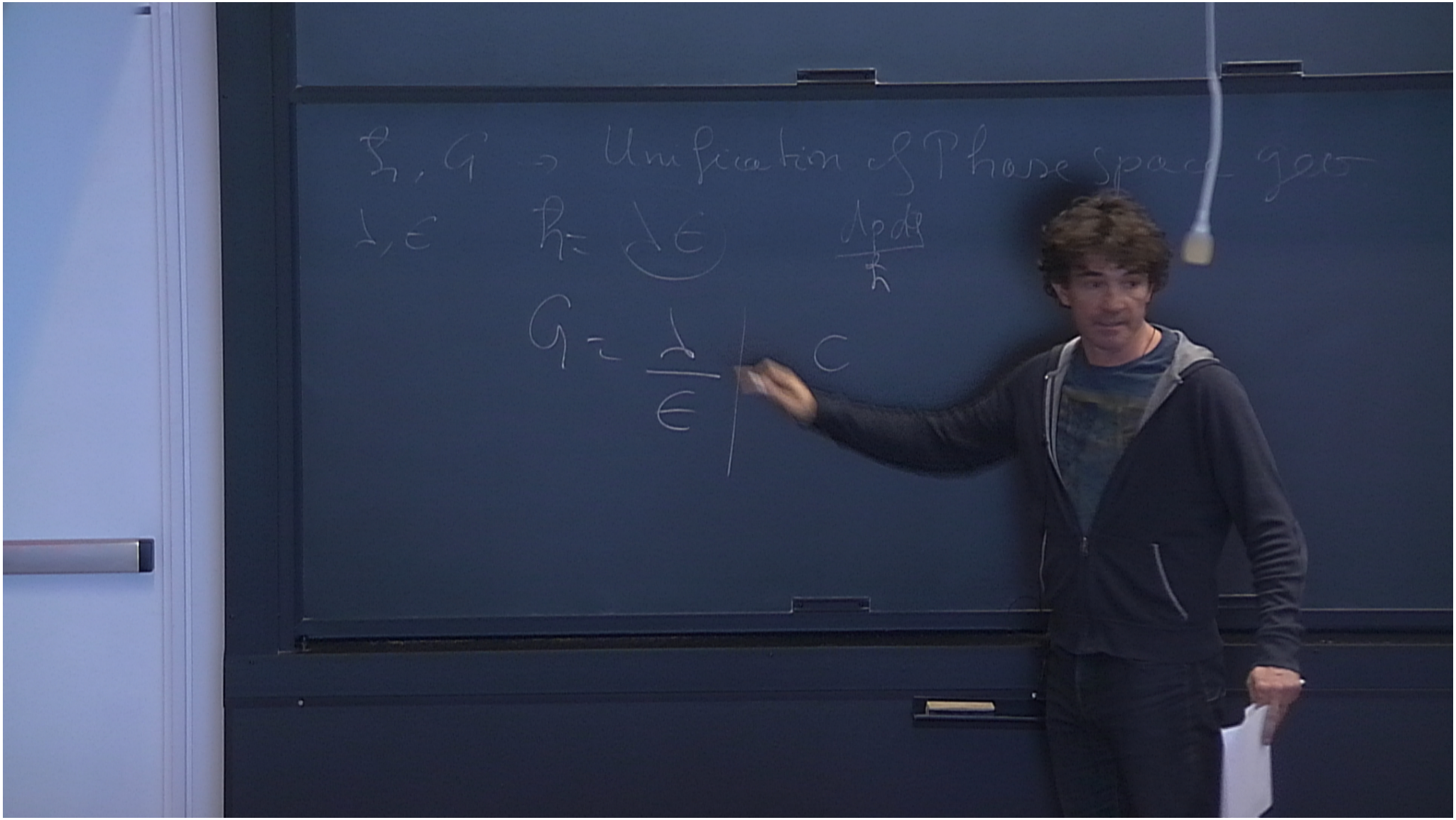

Quantum Gravity
R. Leigh, D. Minic
(1)
(2)
R. Penrose
• Quantize Gravity:
• Gravitize the Quantum"
What does that mean??

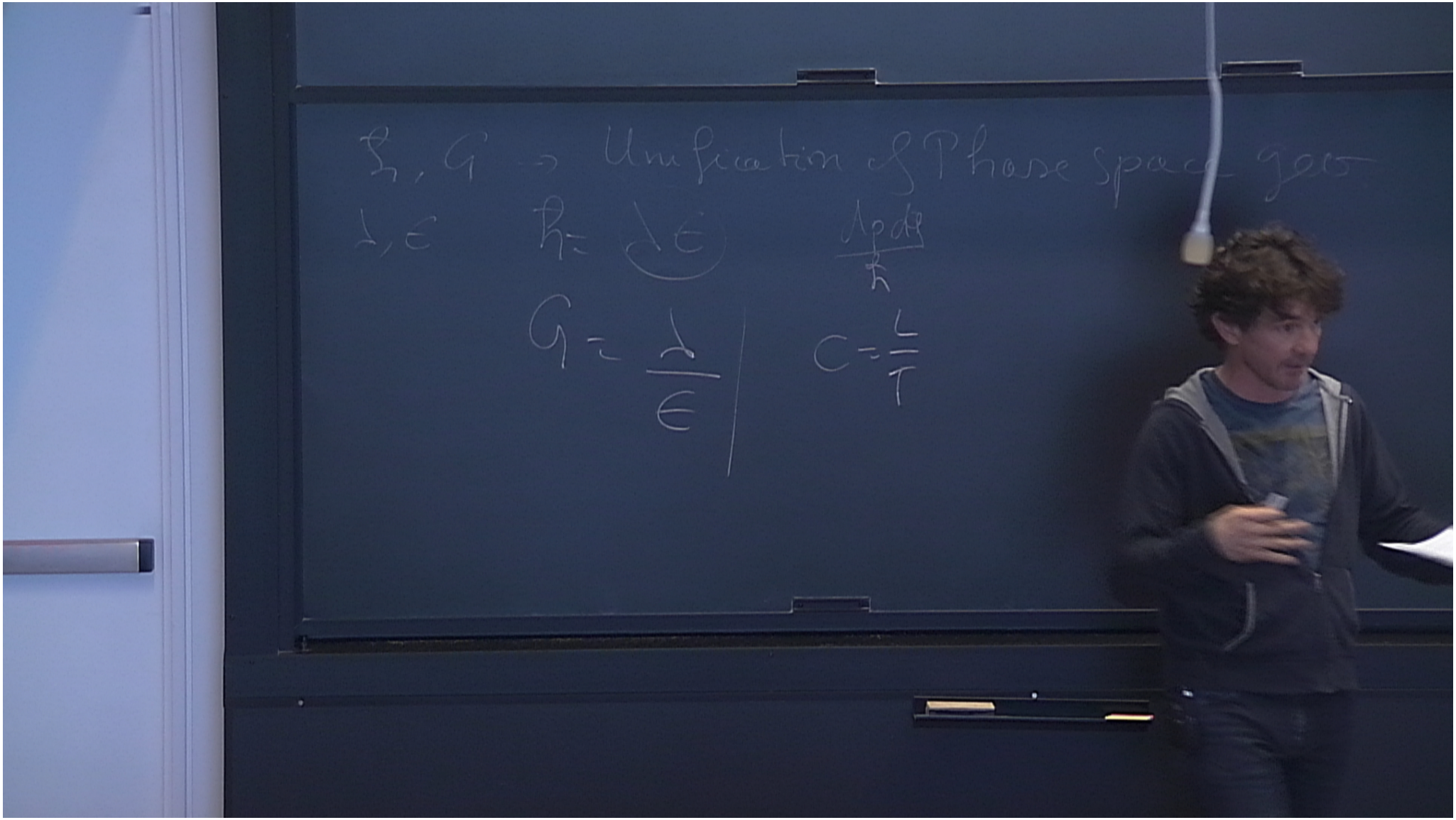

Gravity: is geometrical
QFT: is algebraic ?

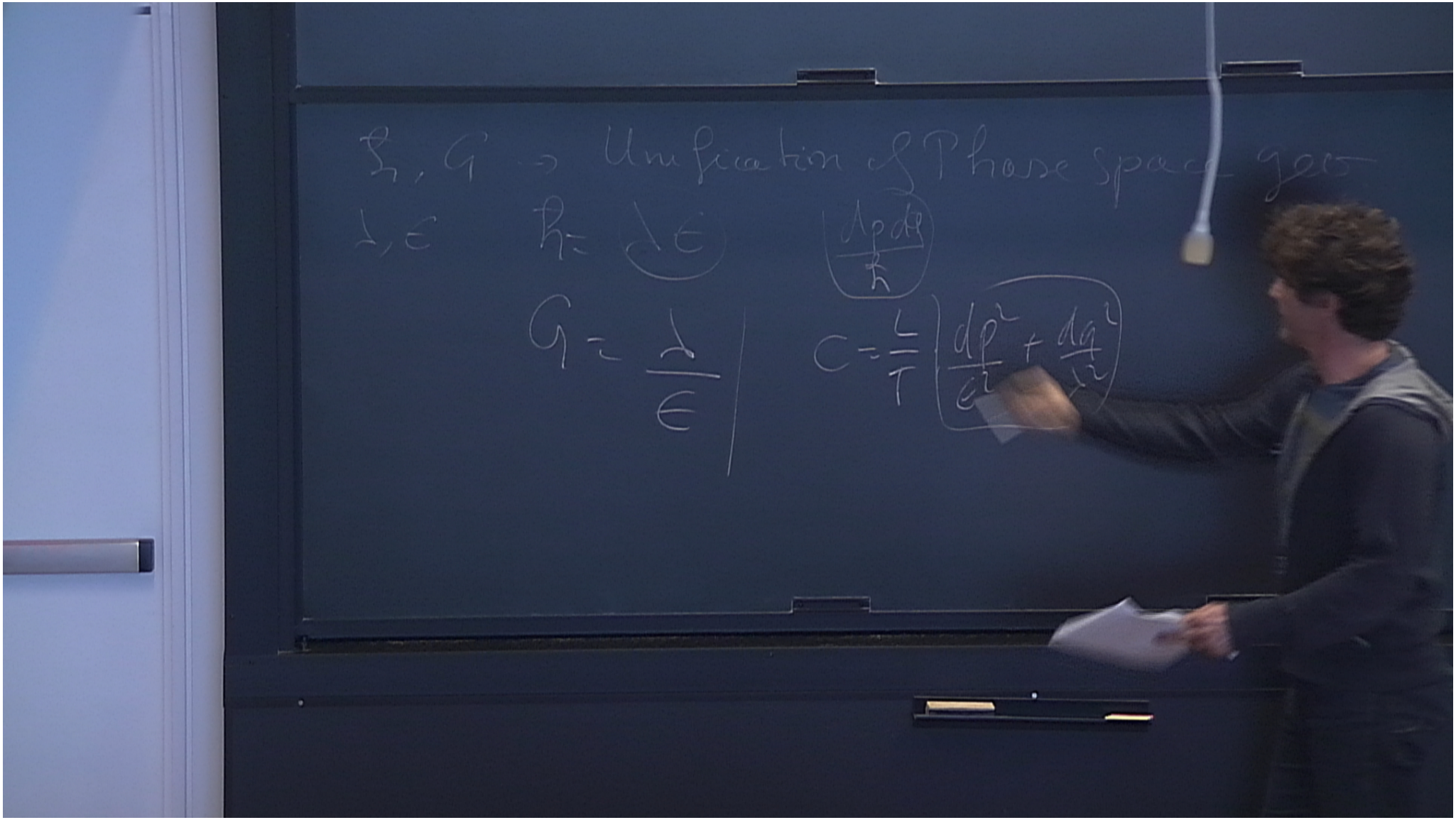

Gravity: is geometrical
QFT: is algebraic
Geometrical QFT. Ashtekar-

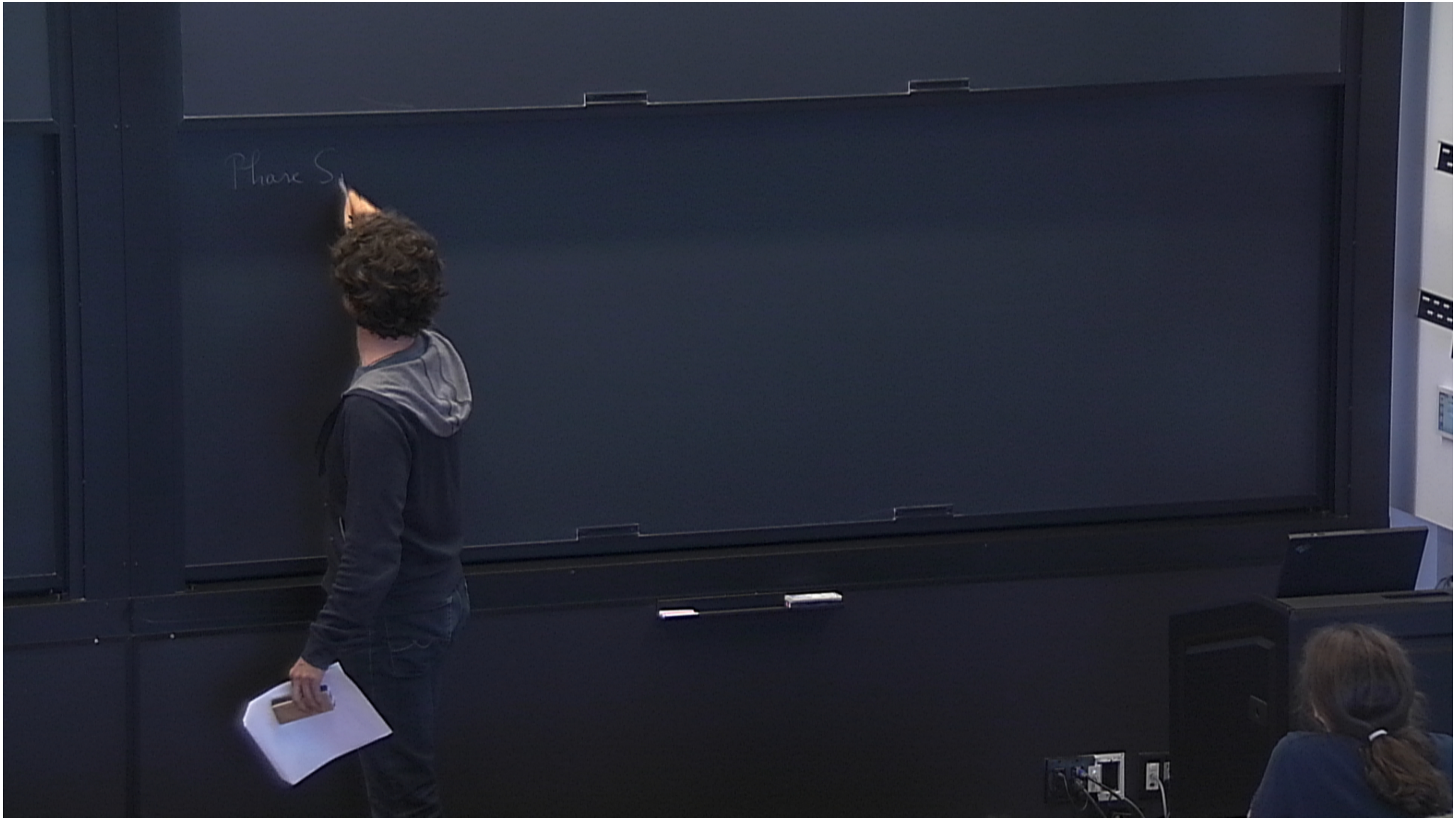

Unification of Phase space geo

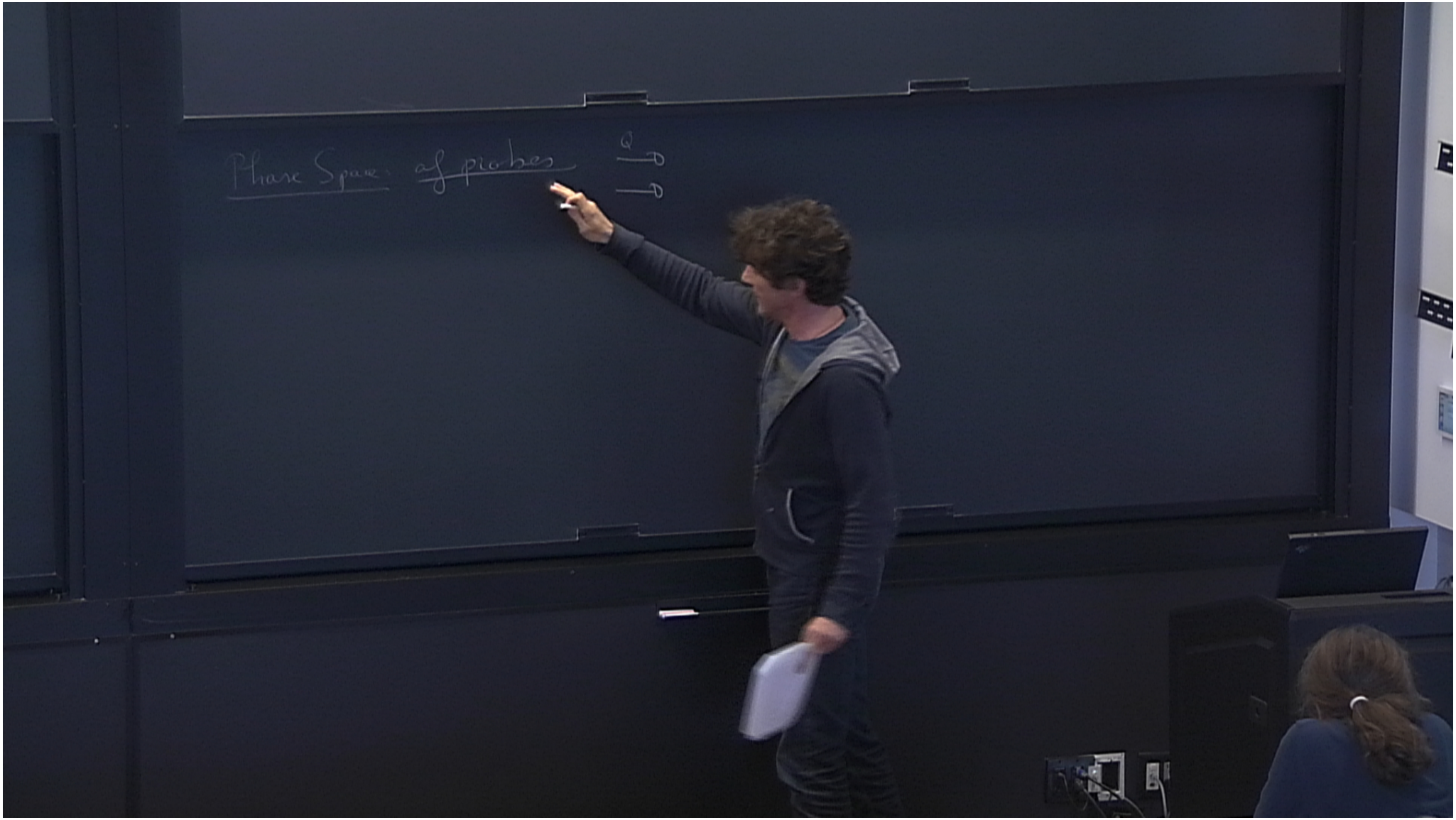

Unification of Phase space

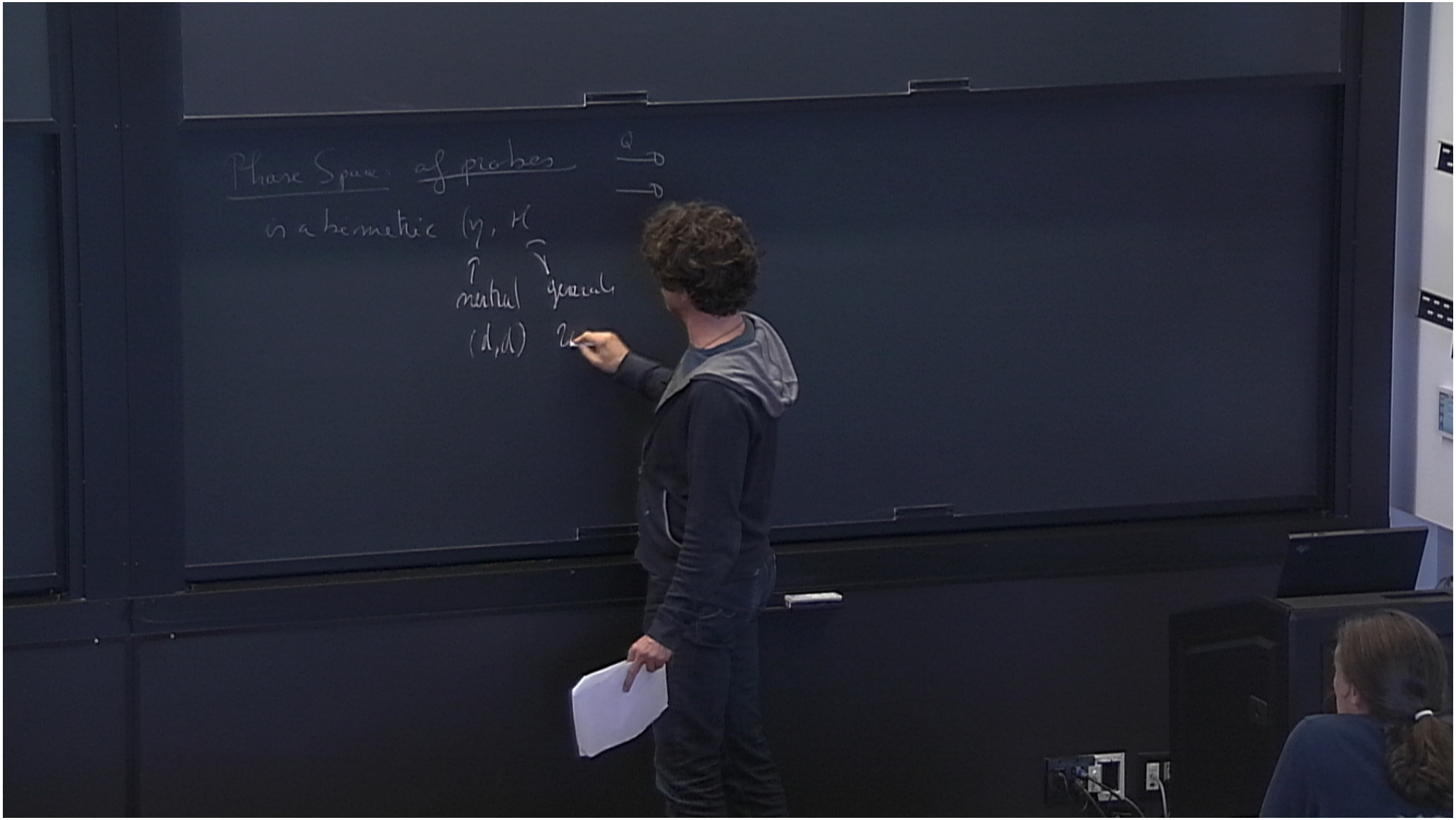

Unification of Phase Space
G = λ/ε | c

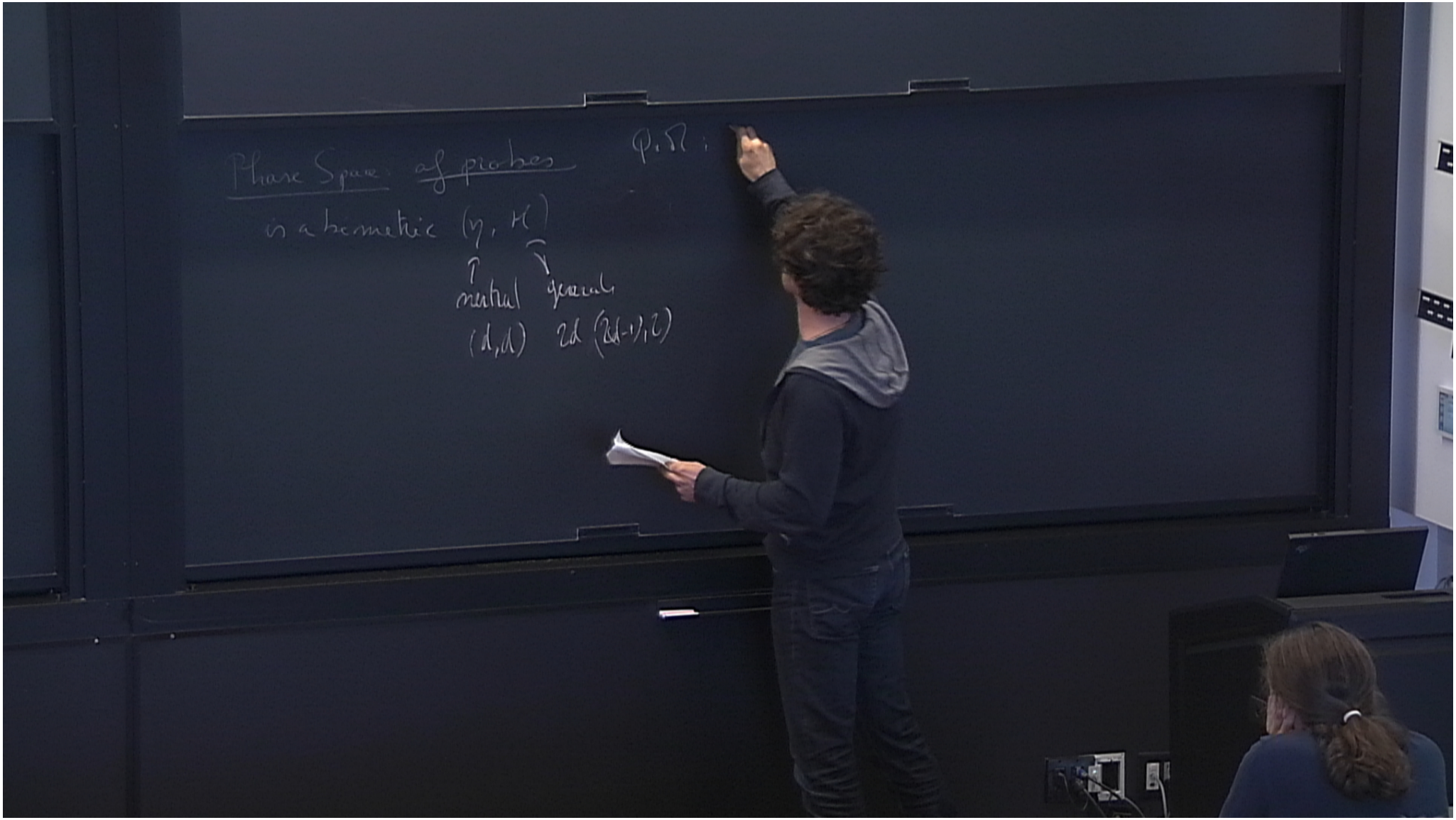

Unification of Phase space
$G = \frac{\lambda}{\epsilon}$
$C = \frac{L}{T}$

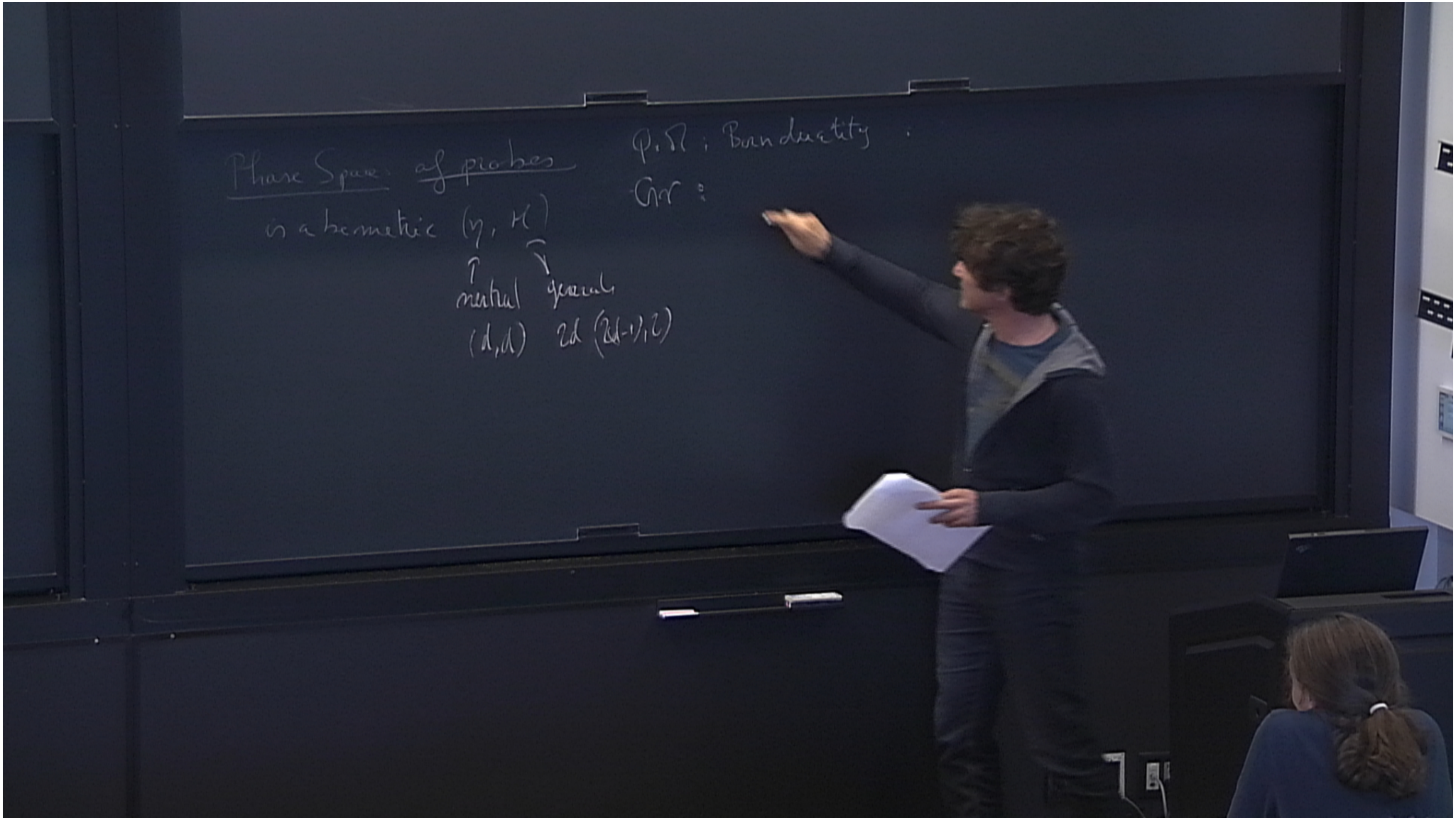

Unification of Phase space geo
G = λ/ε
C = L/T

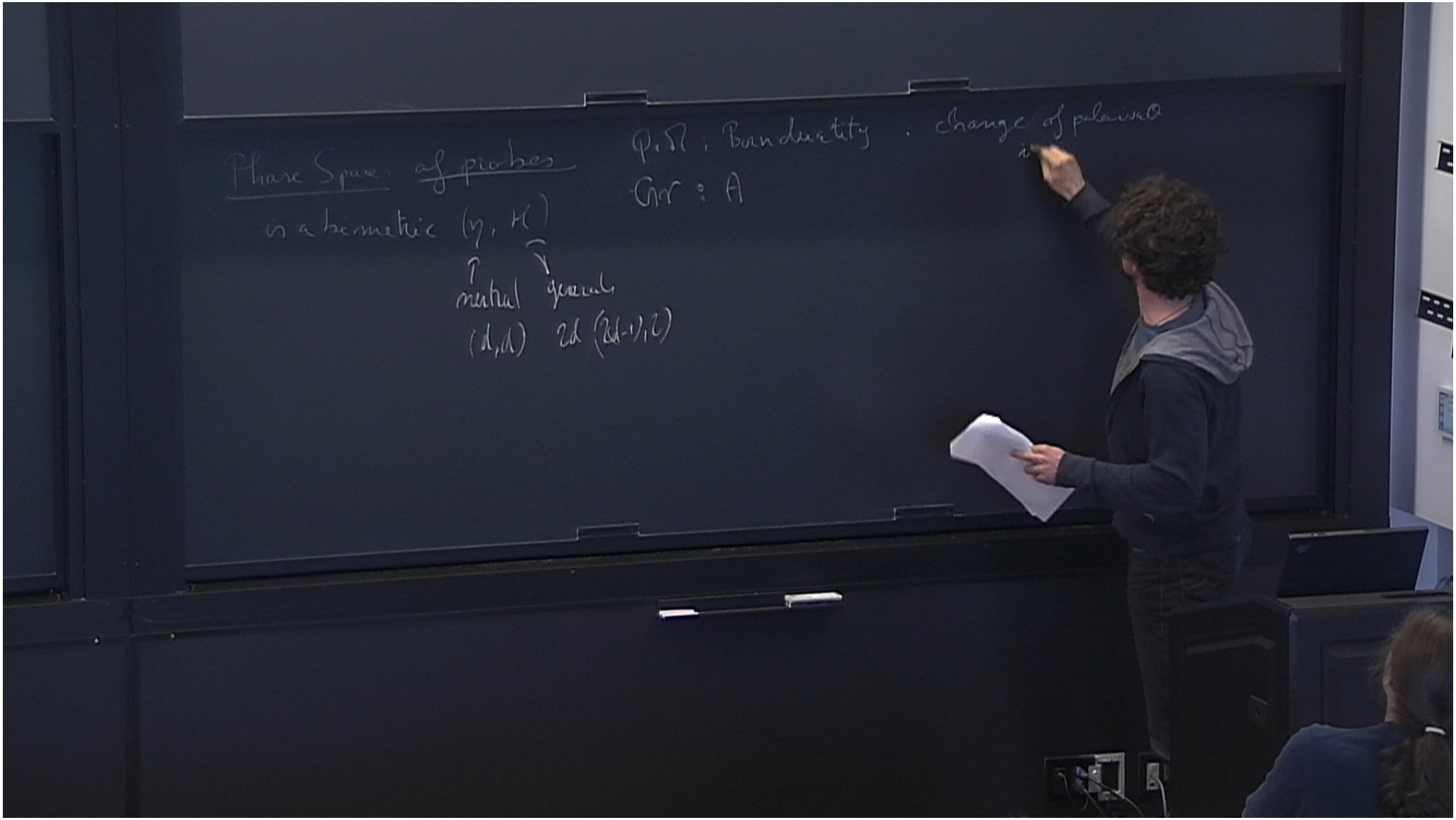

Phase S

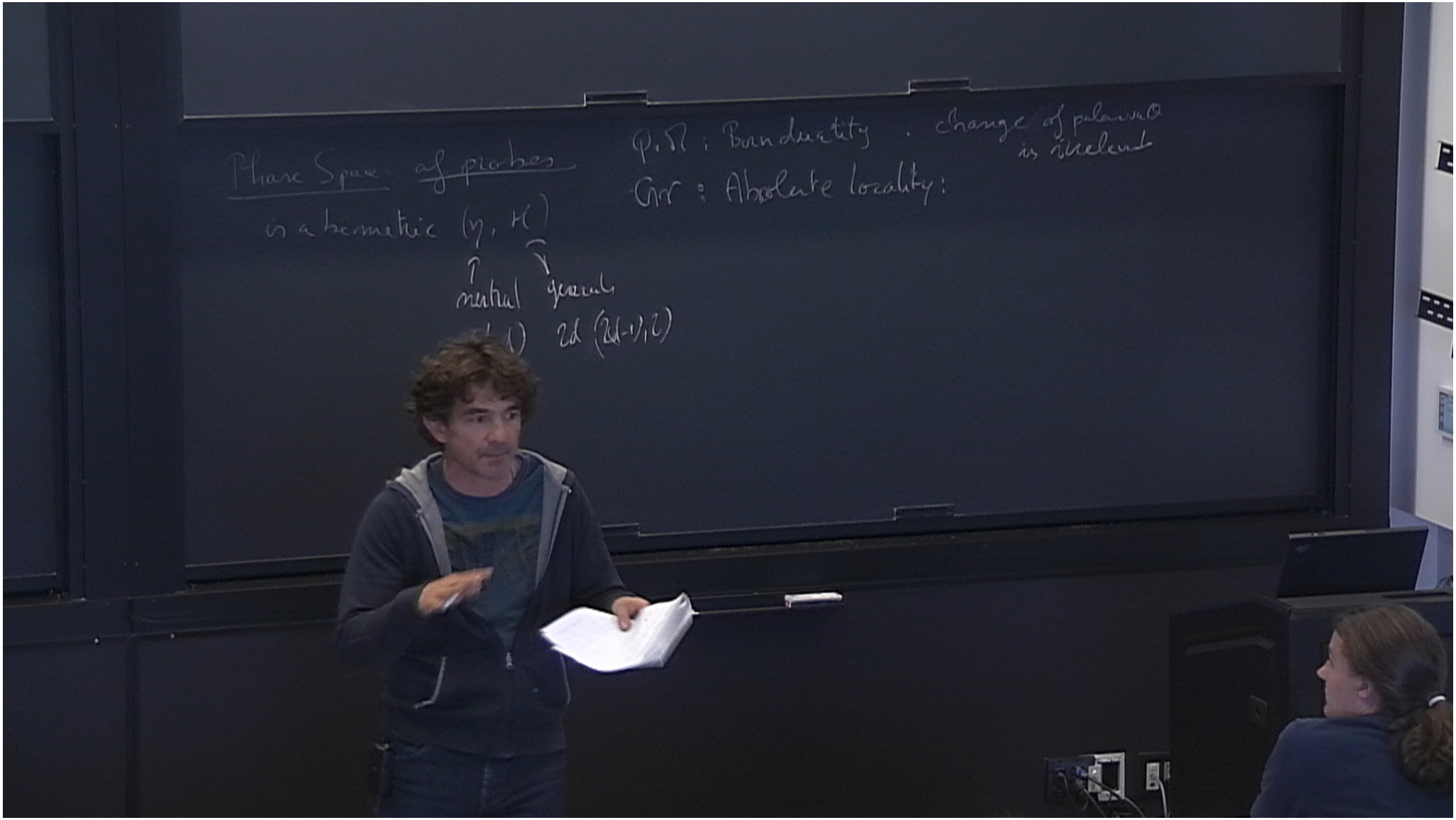

Phase Space of probes
Q

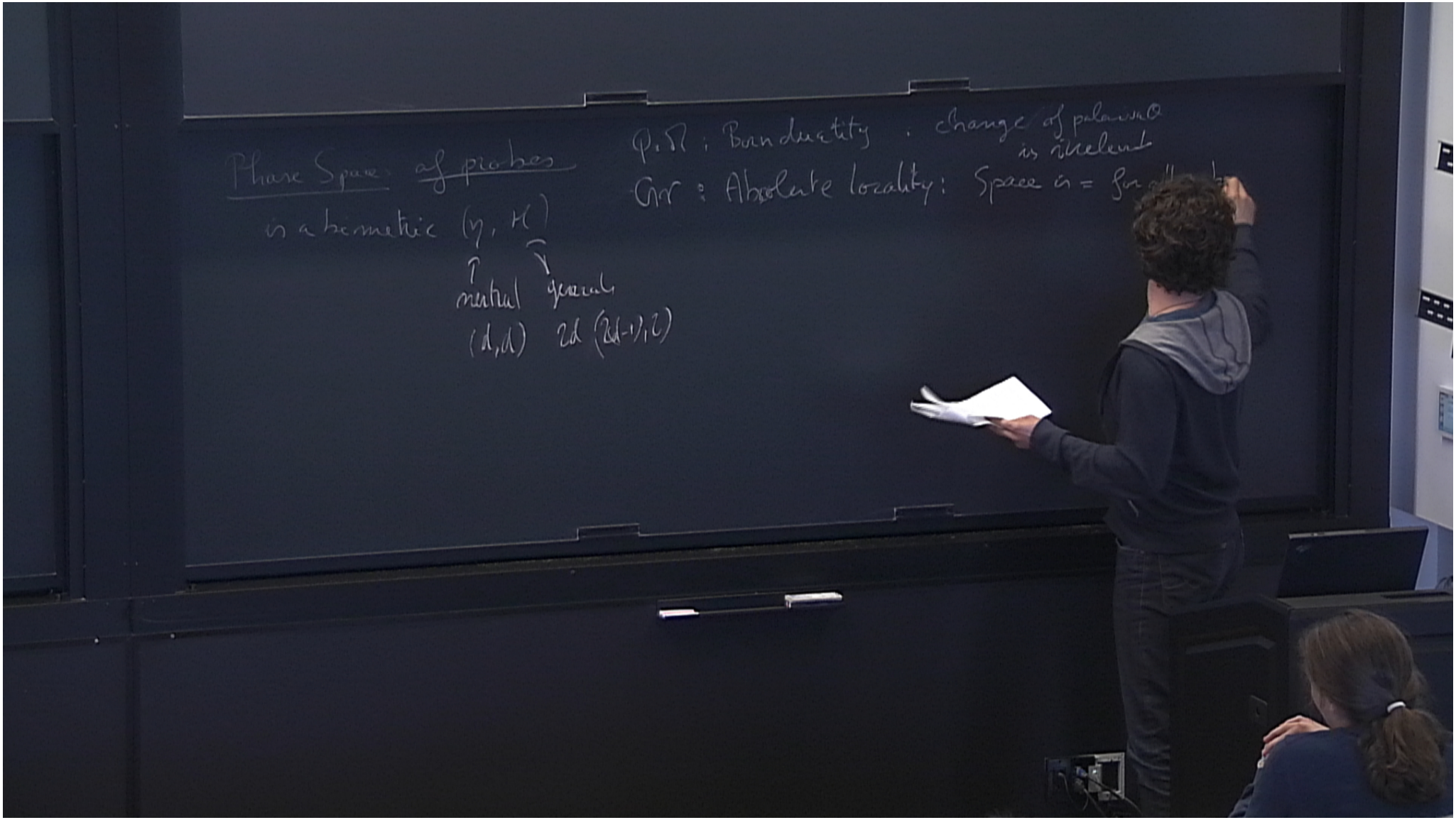

Phase Space of probes
is a hermetic (η, H
mutual
(d,d)

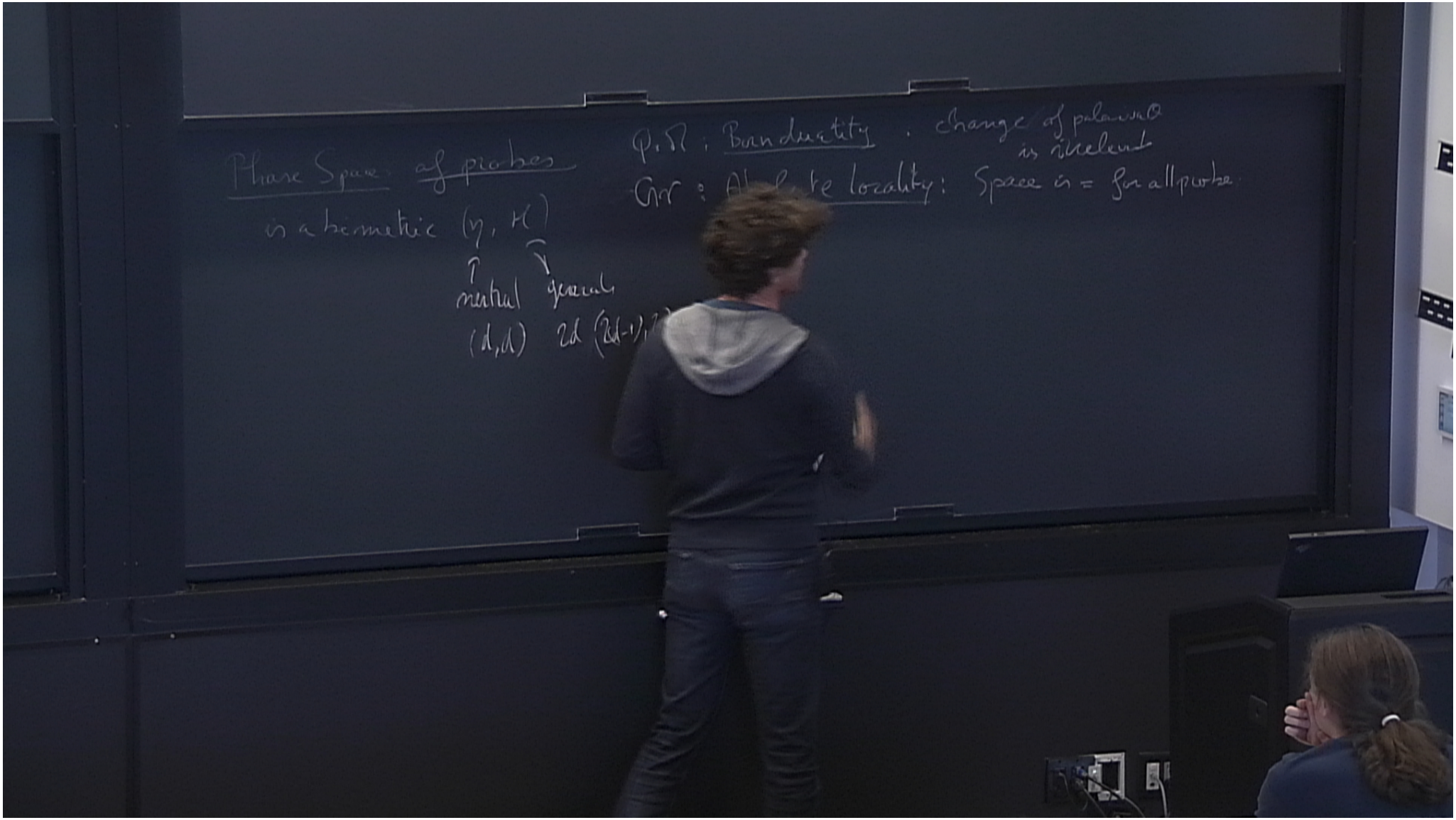

Phase Space of probes
is a hermetic (η, H)
mutual
(d,d)
generate
2d (2d-1)/2

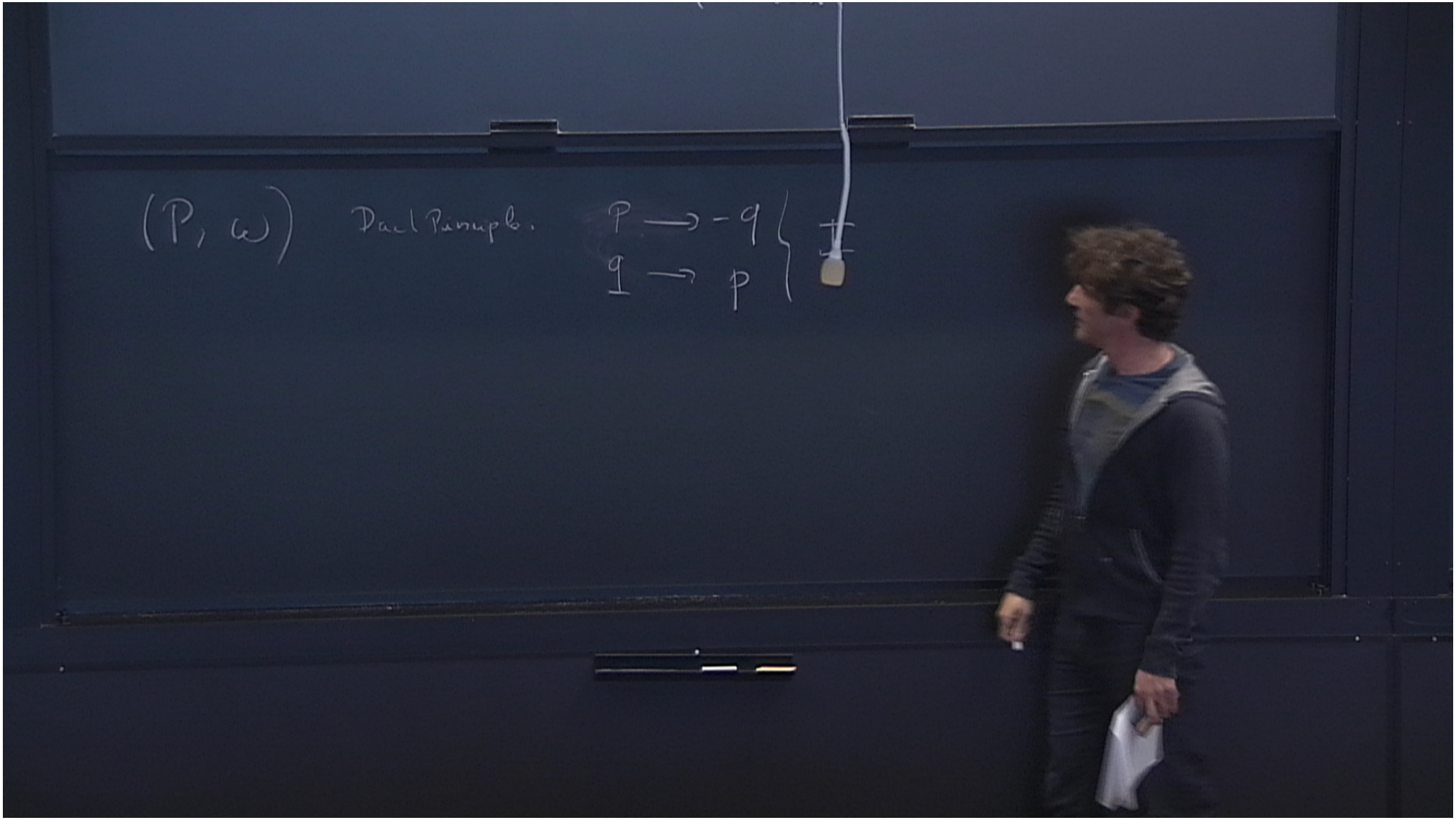

Phase Space of probes
is a hermetic (η, H)
metric
(d,d)
geometry
2d (2d-1)/2
P, S? ; Boundaries ?
Grr ?

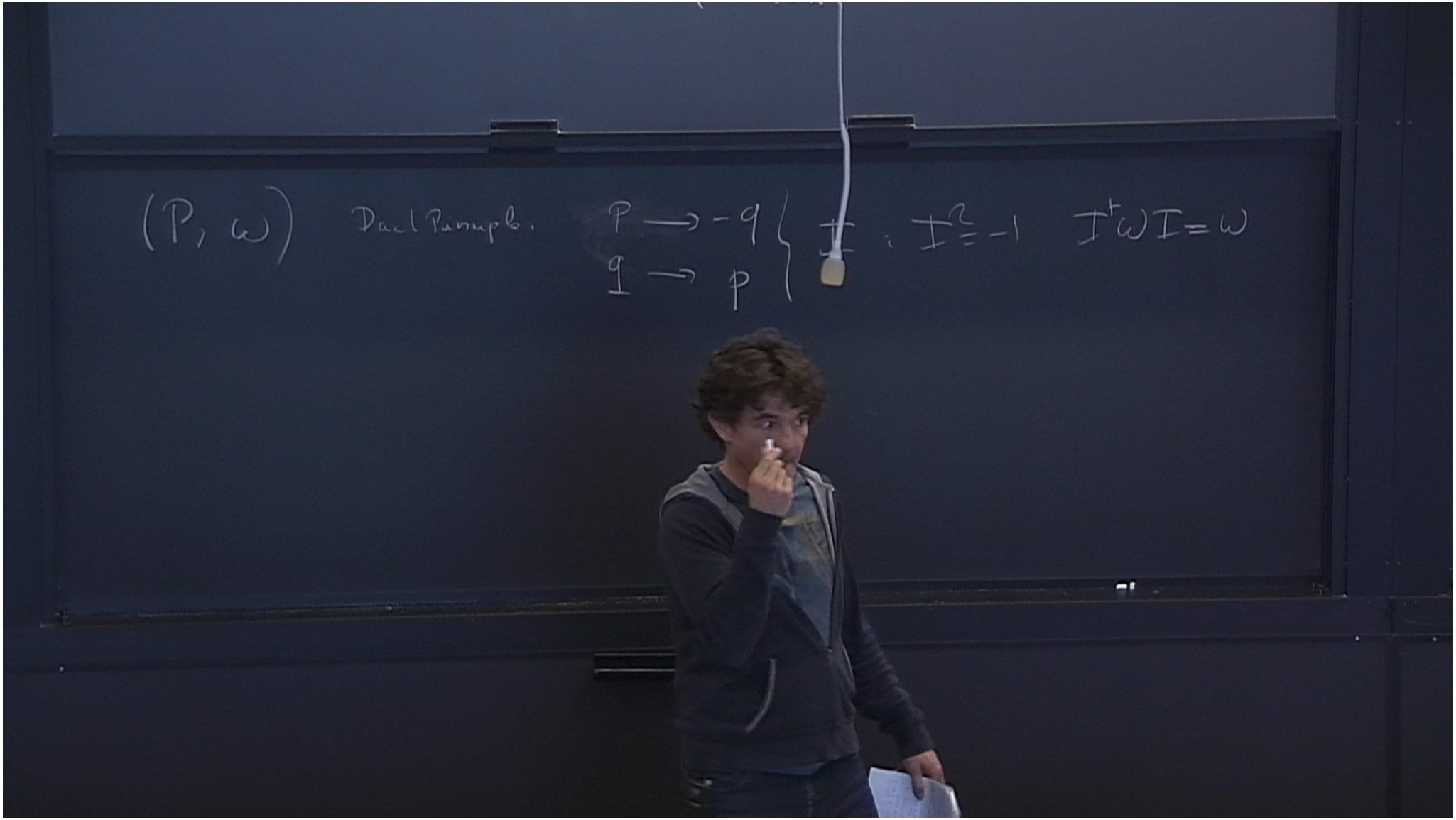

Phase Space of probes
is a hermetric (η, H)
metric
(d,d)
geometric
2d (2d-1)/2
P.S.T. : Boundarity : change of polarity
Grr : A

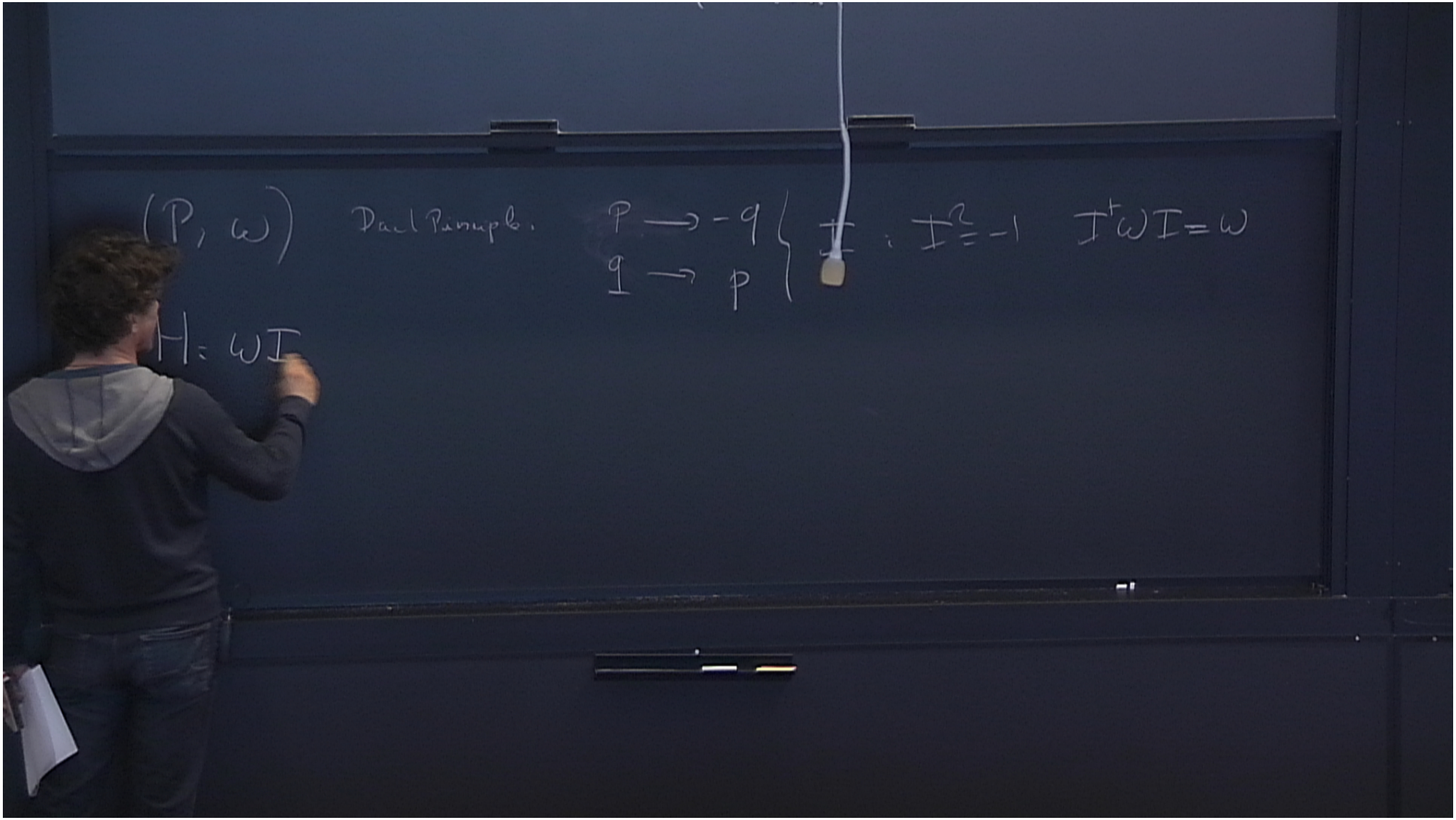

Phase Space of probes
is a hermetic (M, H)
mutual
P.S.R : Boundarity . change of paradigm is irrelevant
GRR : Absolute locality:

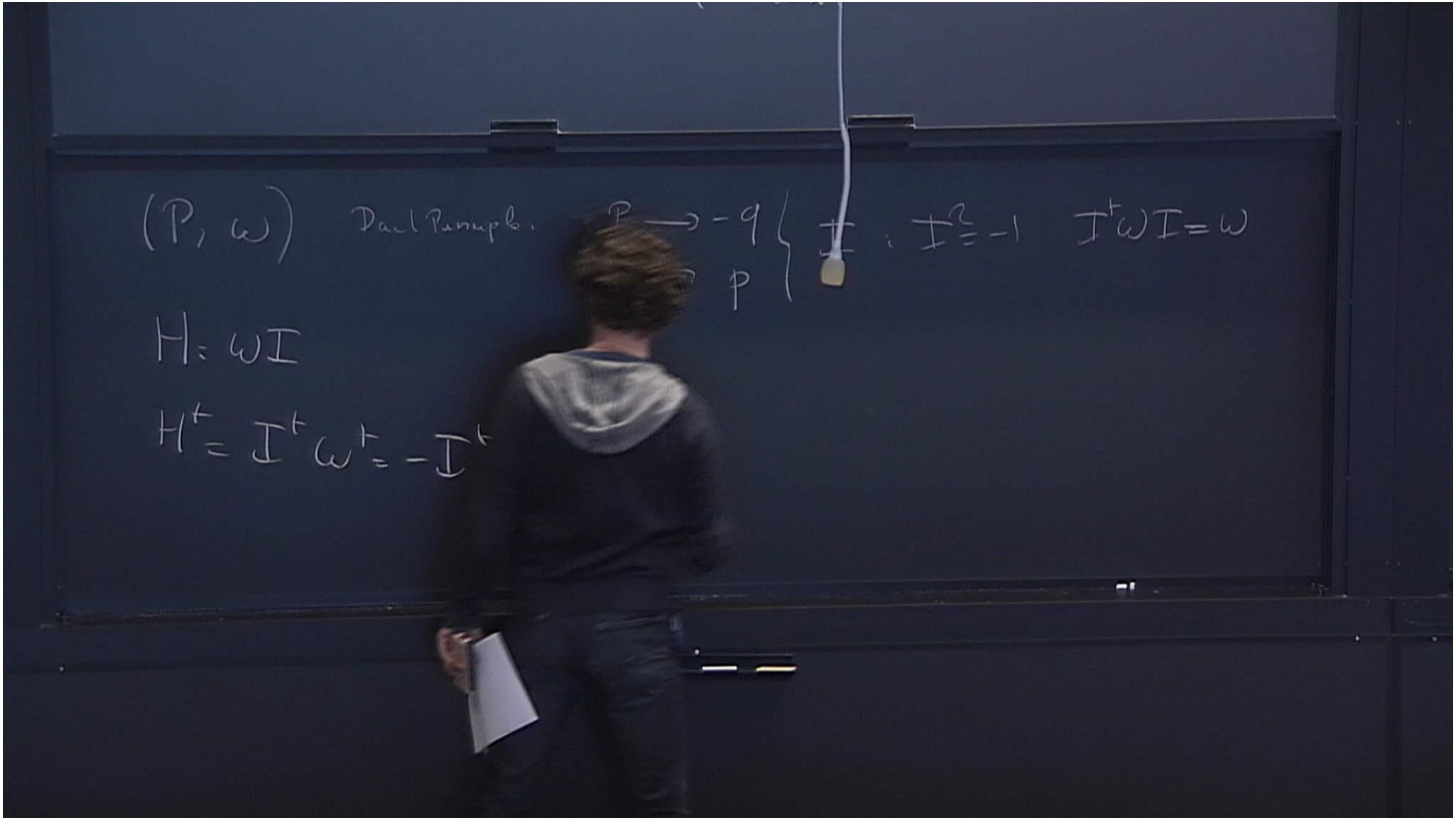

Phase Space of probes
is a hermetic (η, H)
metric
(d,d)
geometry
2d (2d-1)/2
P.S.R : Boundedness . change of paradigm is irrelevant
GR : Absolute locality: Spaces in =

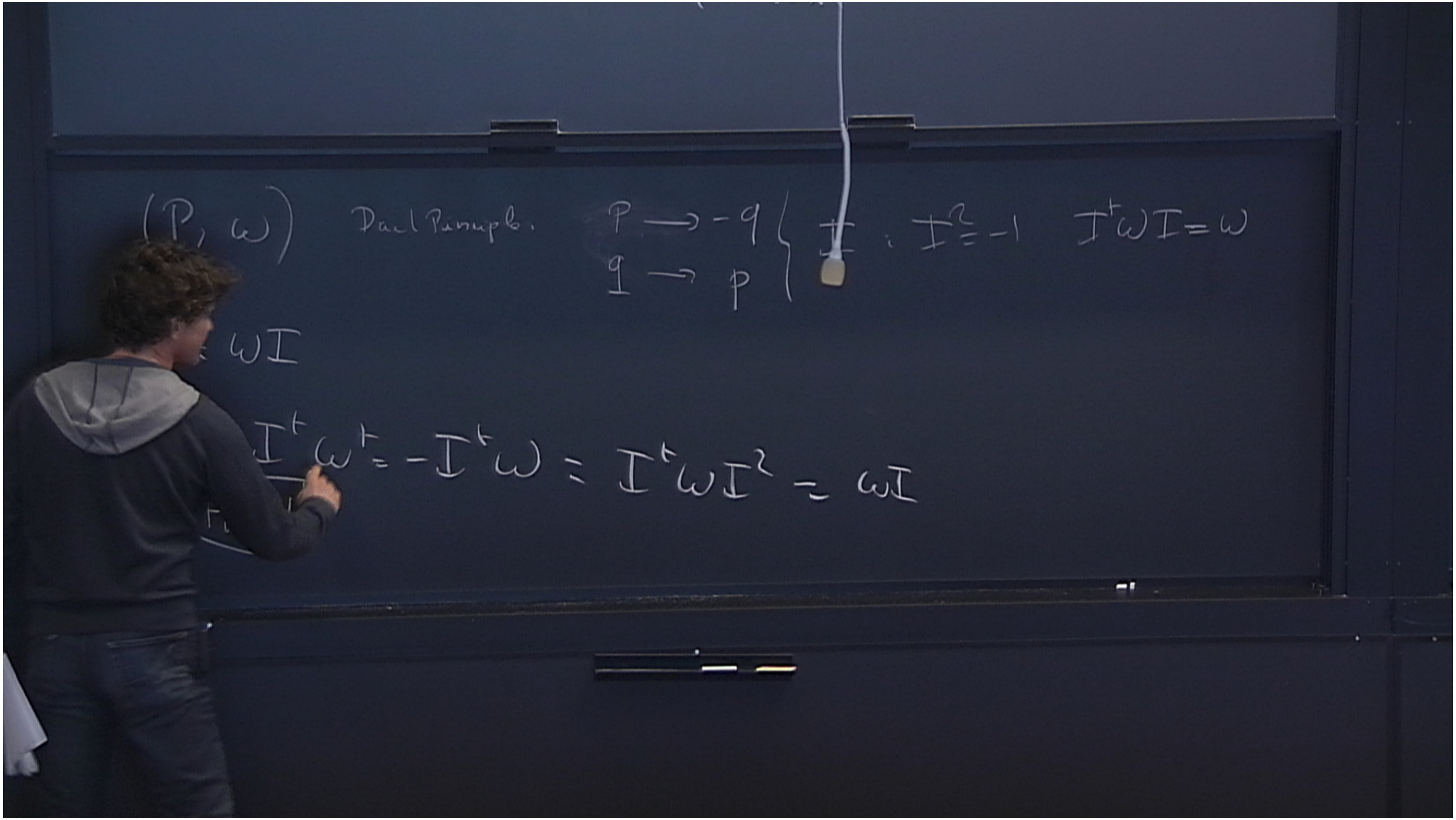

Phase Space of probes
is a hermetic (η, H)
metric
(d,d)
P.S: Boundedness : change of polarization is irrelevant
Grr : Absolute locality: Space is = for all probes

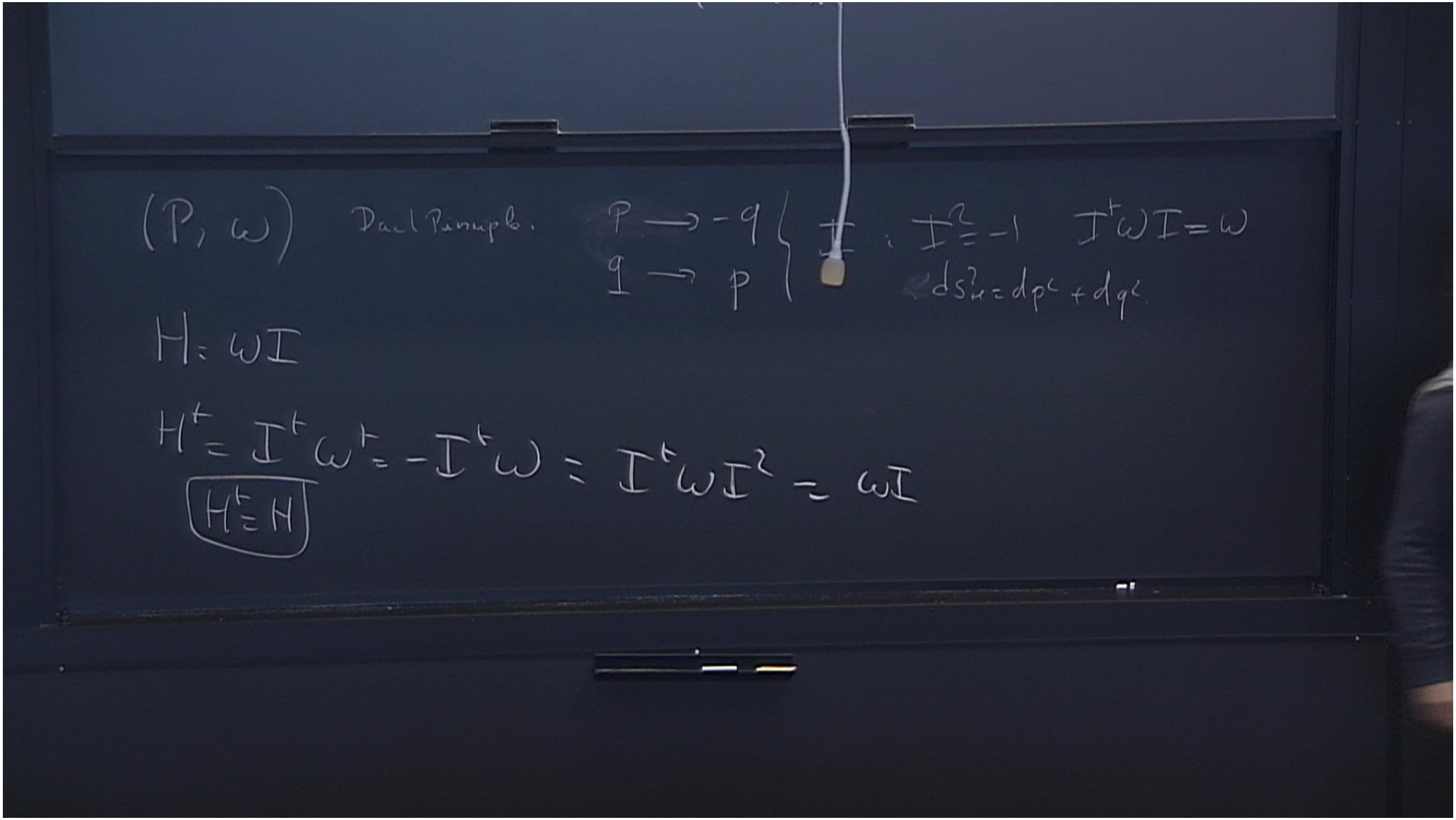

(P, ω) Dual Pairings.
P → -q
q → p

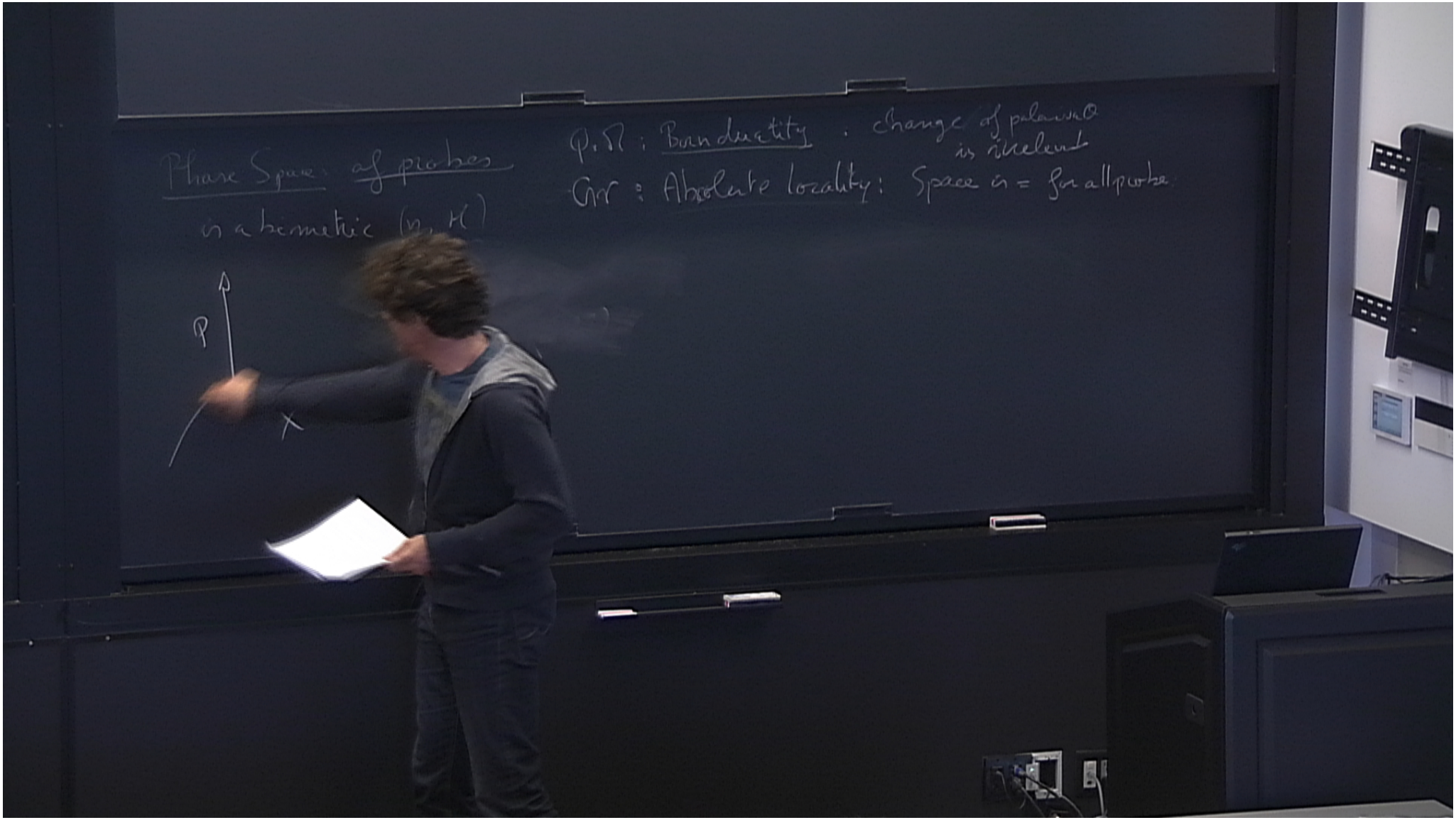

(P, ω) Dual Pairs.
P → −q
q → p
I : I² = −1
I^t ω I = ω

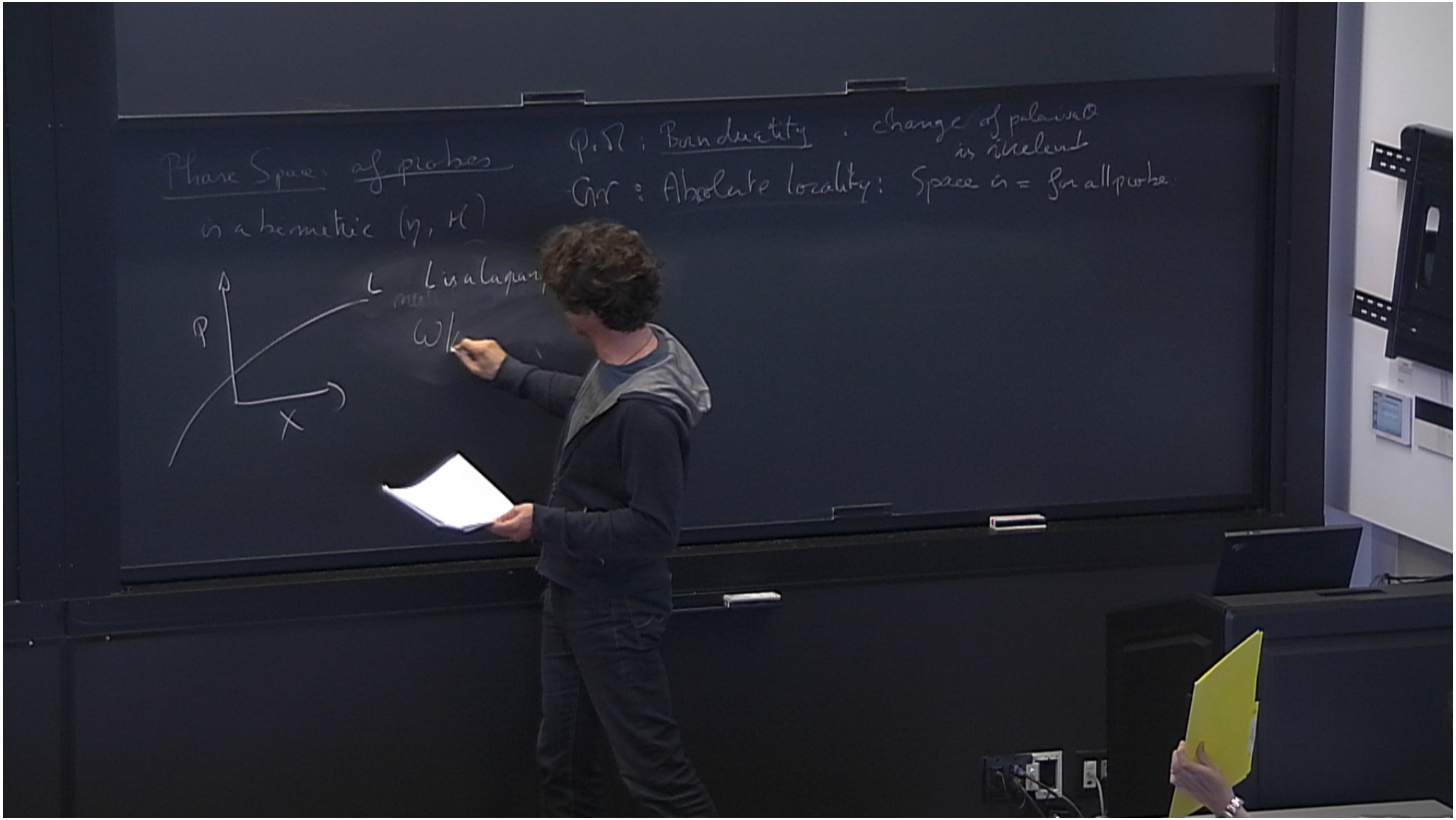

(P, ω) Dual Pairings.
p → −q
q → p
I : I² = −1
I†ωI = ω
H = ωI

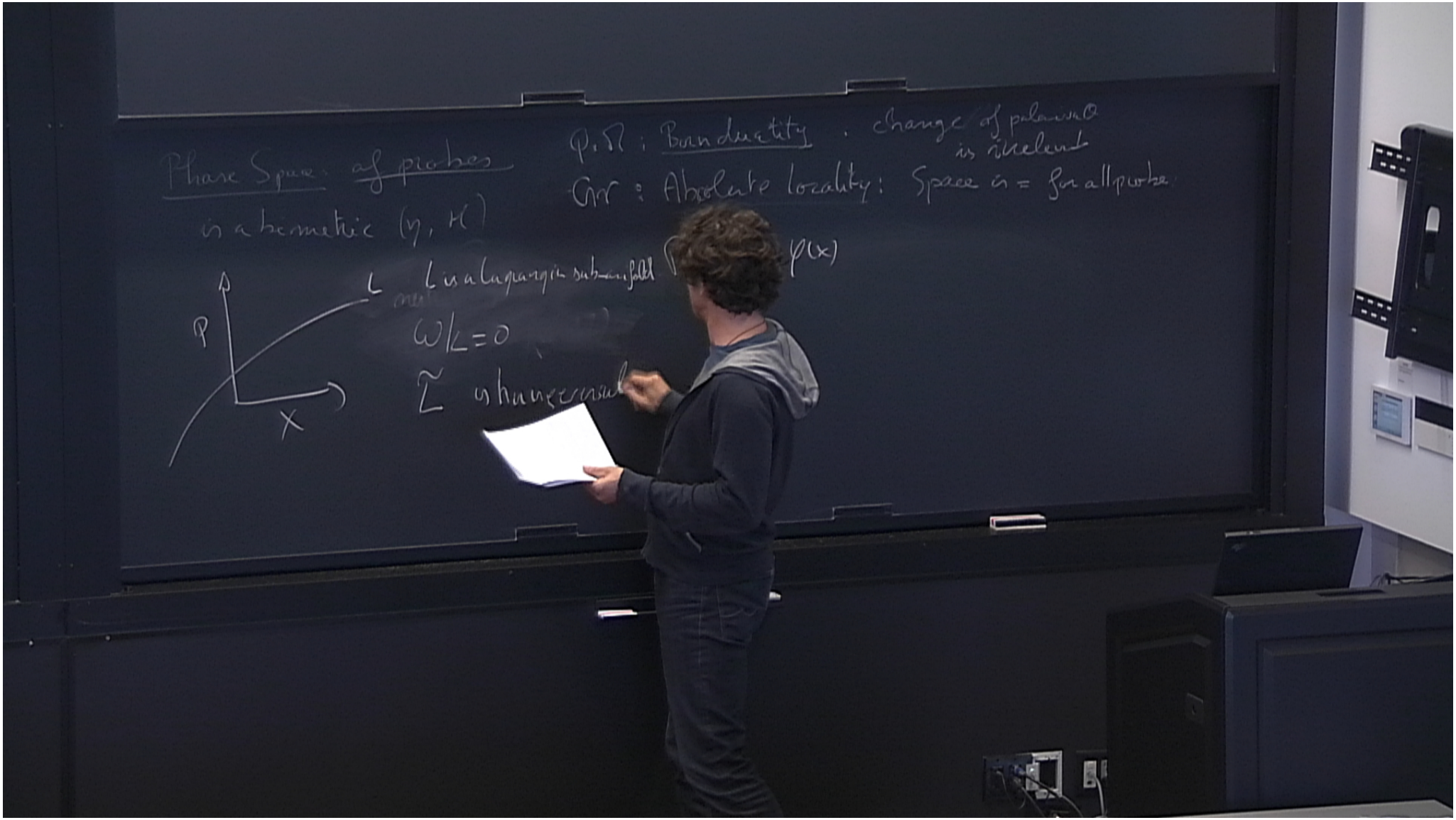

(P, ω) Dual Pairs. $p \longrightarrow -q$ p I : $I^2 = -1$ $I^t \omega I = \omega$
$H = \omega I$
$H^t = I^t \omega^t = -I^t$

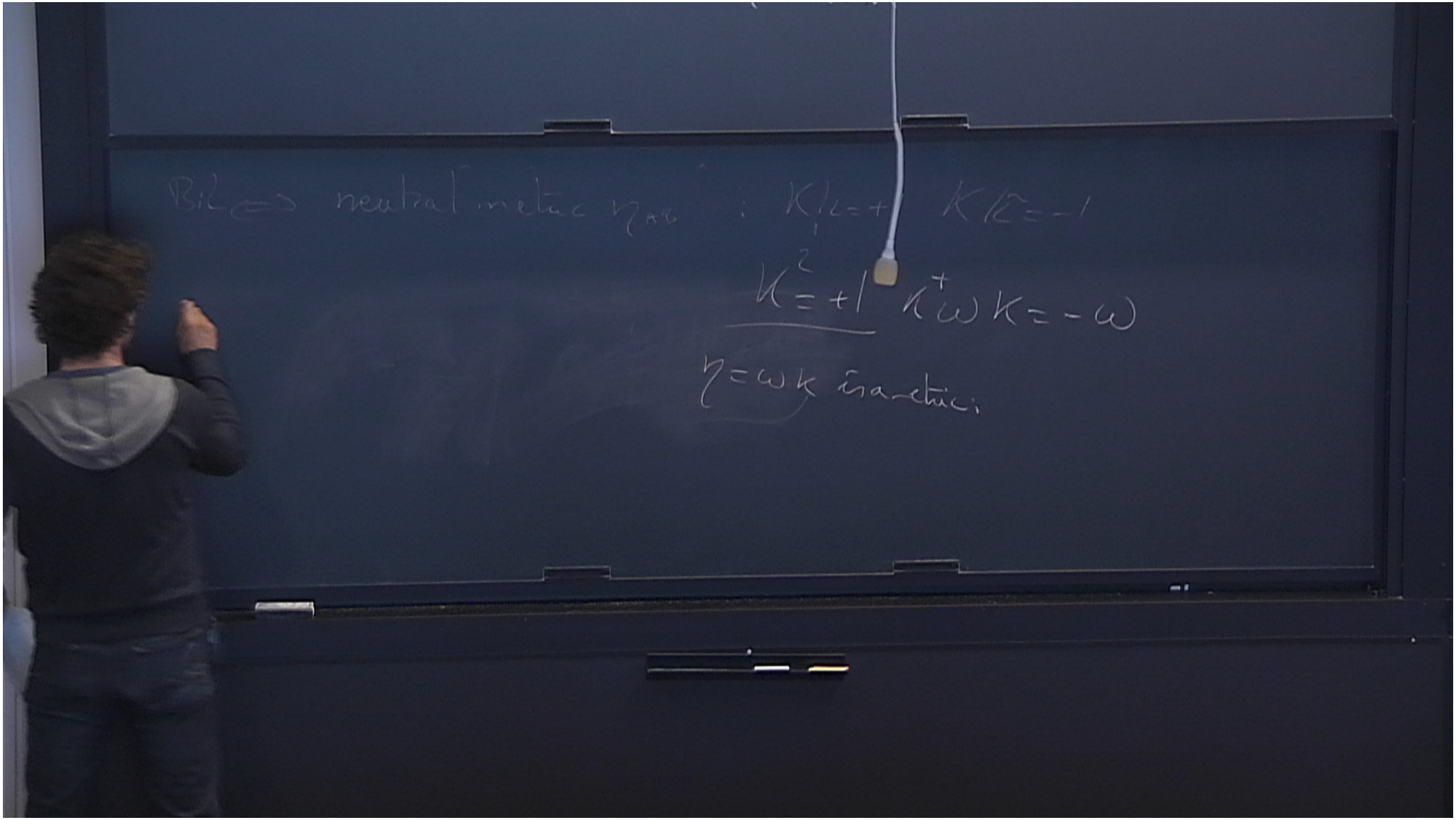

(P, ω) Dual Pairs. $P \to -q$, $q \to p$ $I^2 = -1$ $I^t \omega I = \omega$
$= \omega I$
$I^t \omega^t = -I^t \omega = I^t \omega I^2 = \omega I$

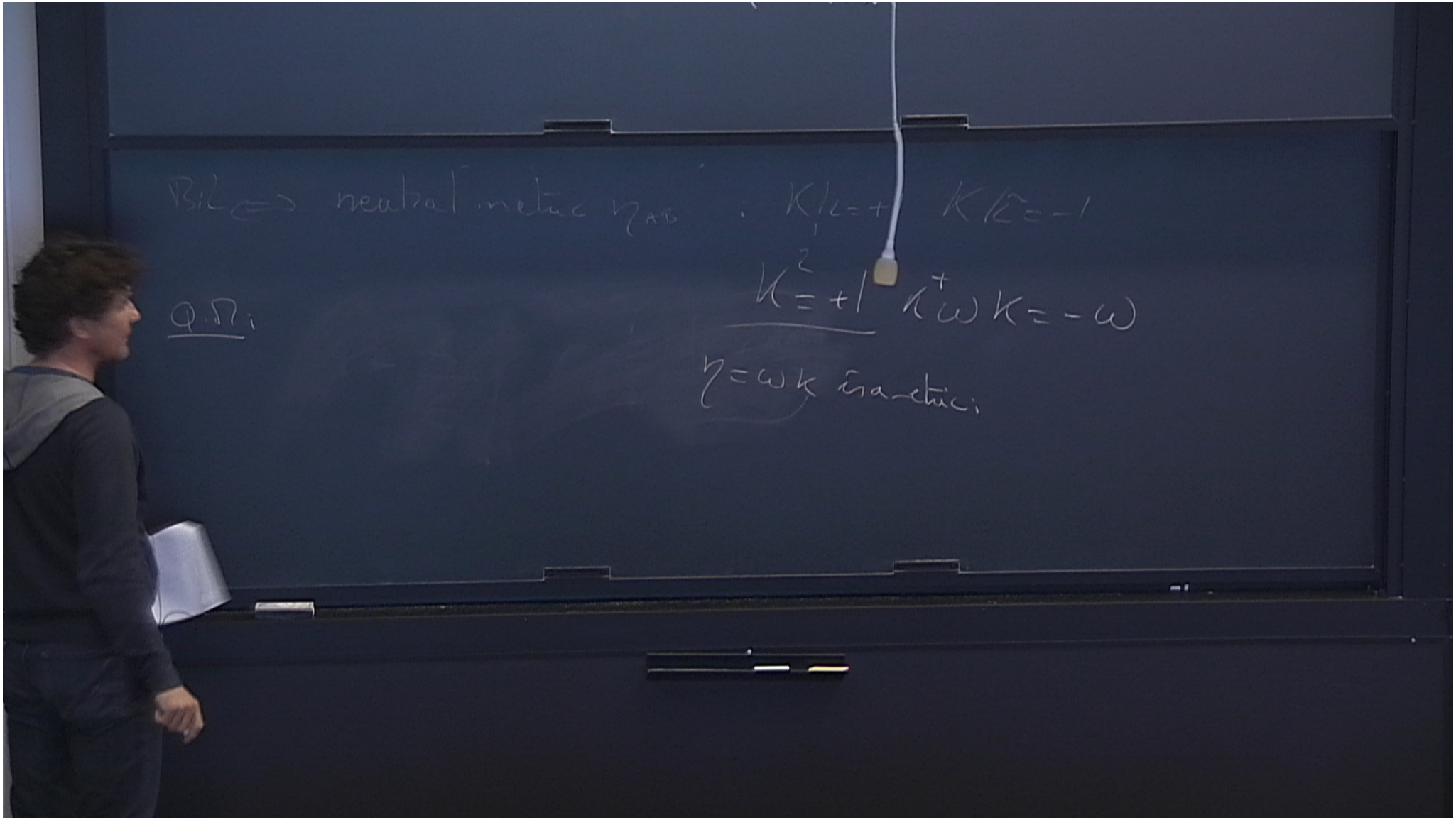

(P, ω) Dual Pairings.
P → −q
q → p
I : I² = −1 I^t ω I = ω
ds²_H = dp² + dq²
H = ωI
H^t = I^t ω^t = −I^t ω = I^t ω I² = ωI
H^t = H

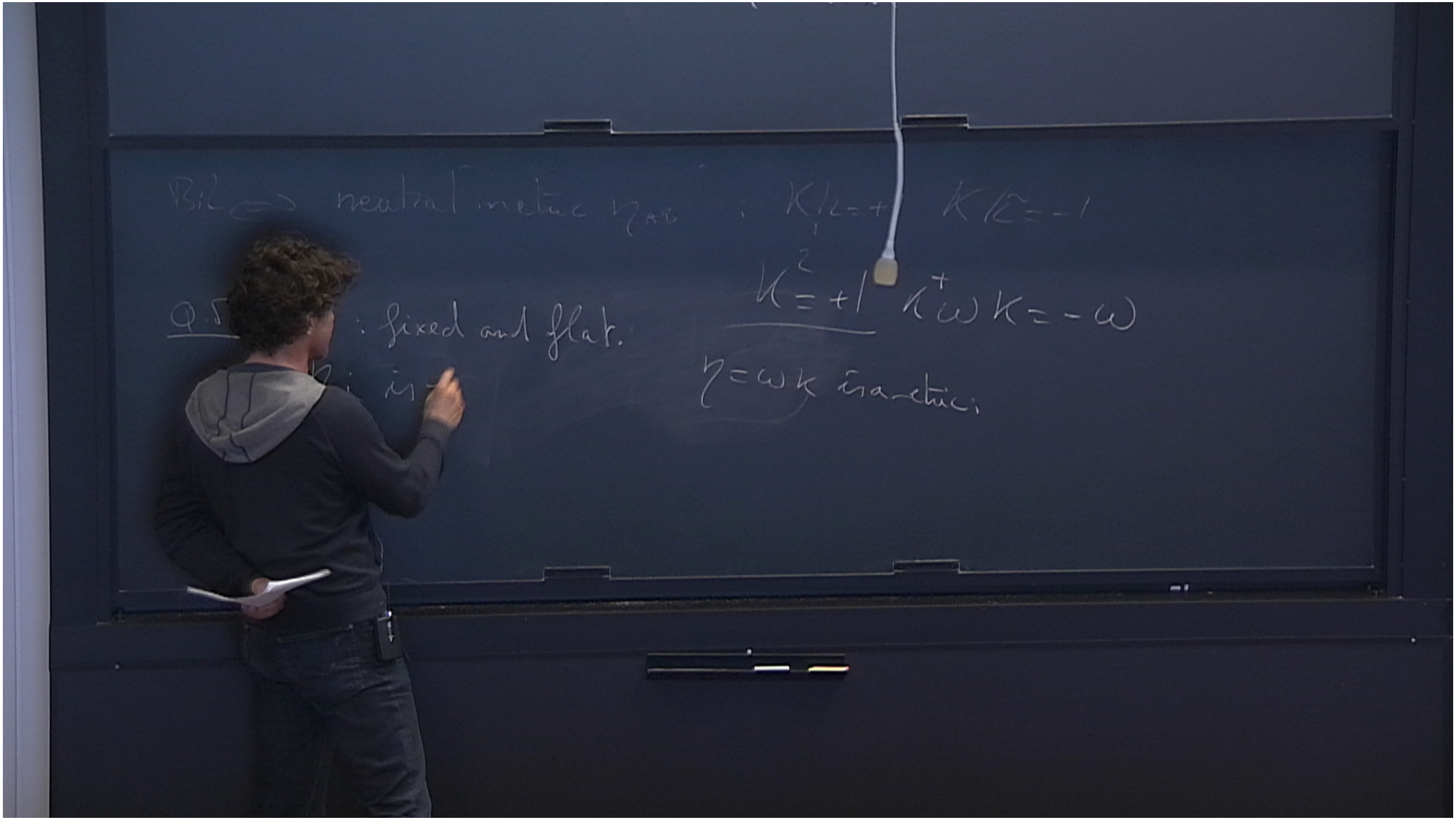

Phase Space of probes
is a hermetic (n, H(
P
X
Q.R : Boundedness . change of polarization is irrelevant
Grr : Absolute locality: Space is = for all probes

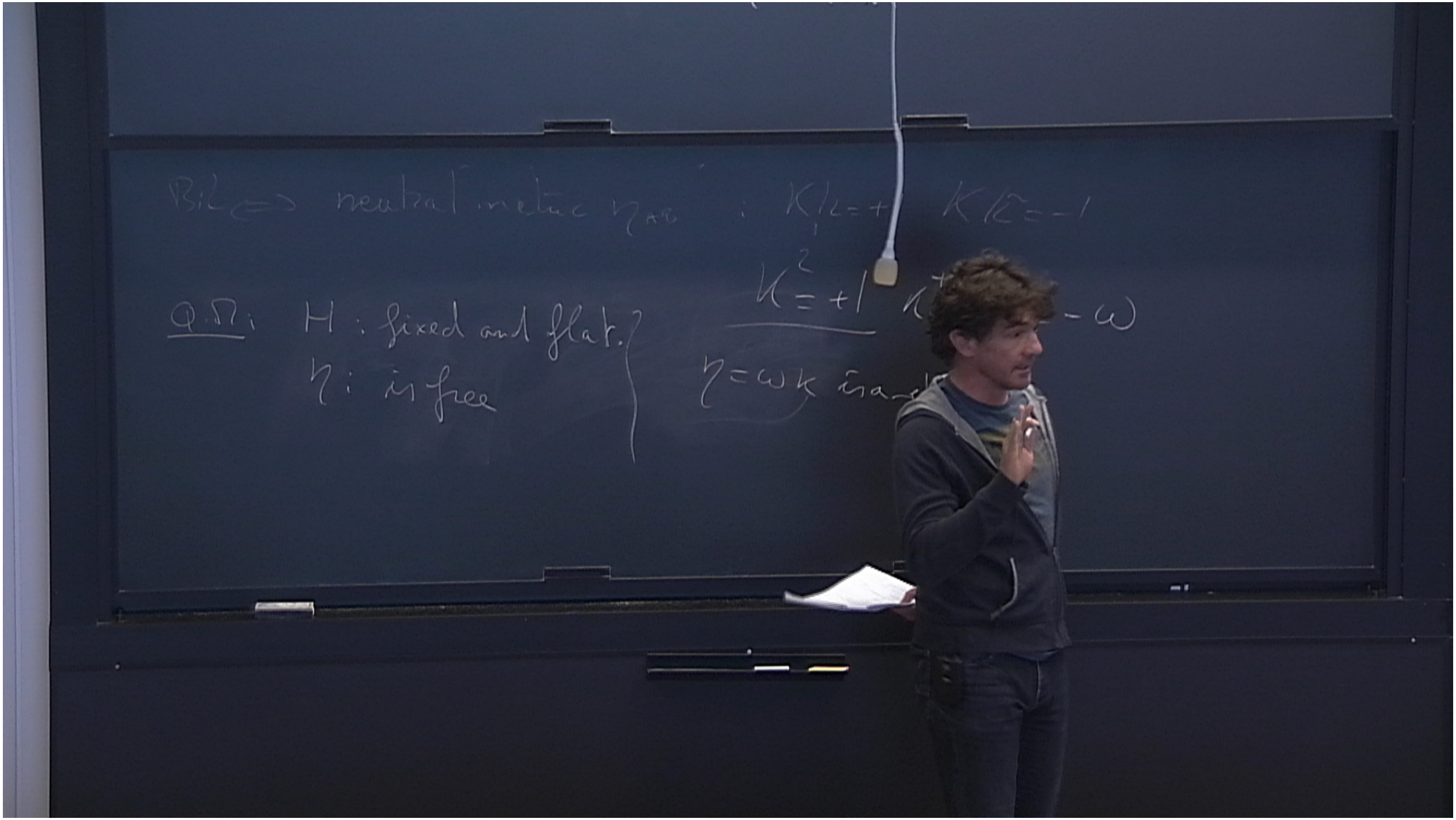

Phase Space: of probes
is a hermetric (η, H(
P.R: Boundarity . change of polarisation is irrelevant
Grr: Absolute locality: Space is = for all probe
P
X

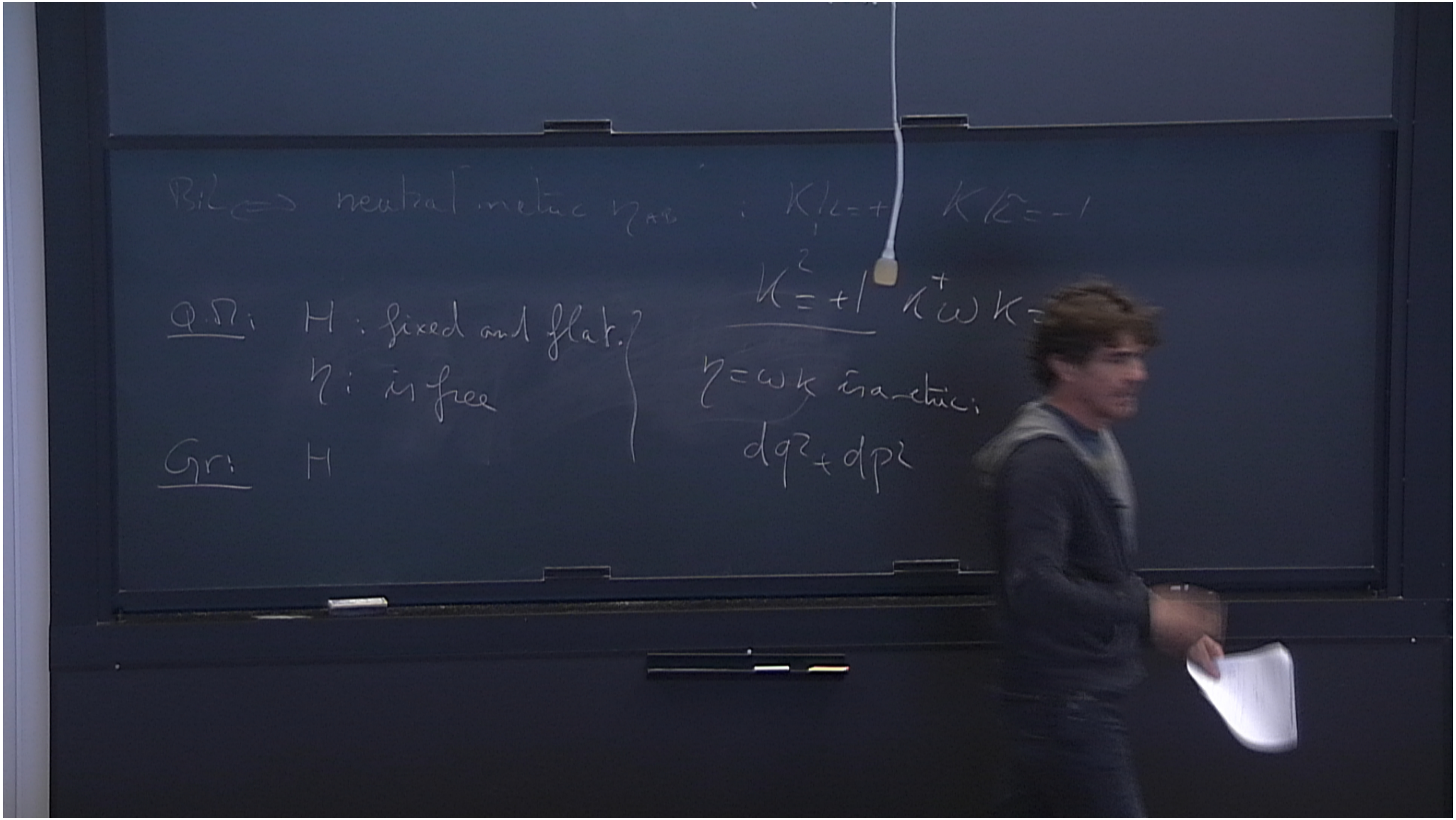

Phase Space of probes
is a hermetic (η, H)
P, R : Boundedness . change of polarization is irrelevant
GR : Absolute locality: Space is = for all probes
L is a Lagrangian sub-manifold
ω|L = 0
Σ
P
X
φ(x)

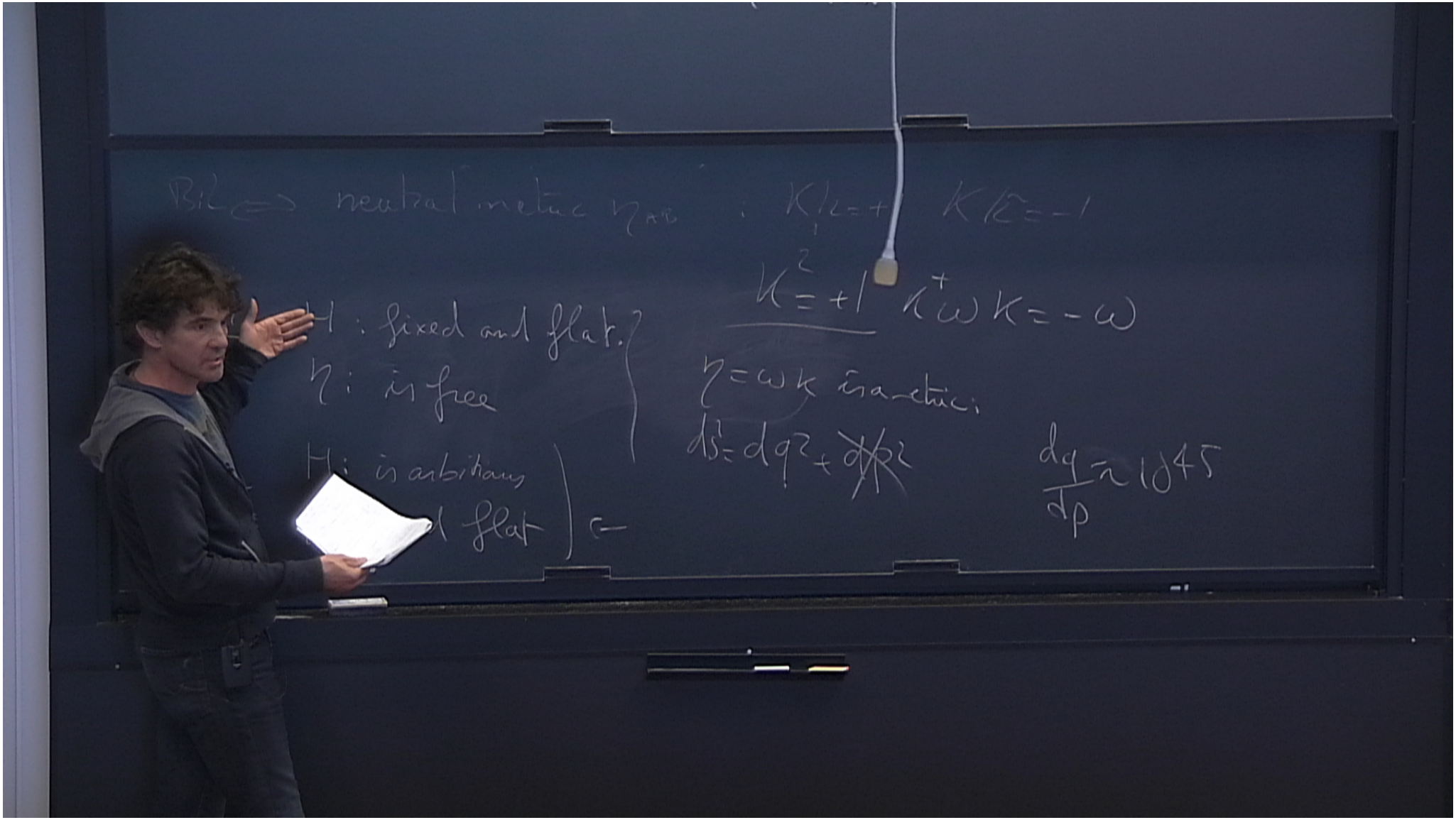

neutral metric η_{AB} : $K_i K = +1$ $K \tilde{K} = -1$
$K^2 = +1$ $K^+ \omega K = -\omega$
$\eta = \omega K$ symmetric


neutral metric
$K^2=+1$
$K\omega K=-\omega$
$\gamma=\omega K$ inertia


neutral metric
: fixed and flat.
$\gamma = \omega k$ inductive


neutral metric
Q.Ω: H: fixed and flat.?
η: is free


neutral metric
Q.G: H: fixed and flat.
η: is free
Gr: H
η=ωk
dq²+dp²


neutral metric η_{AB} : $K^2_{k=+1}$ $K^2_{\tilde{k}=-1}$
$K^2_{k=+1}$ $K^+ \omega K = -\omega$
η : fixed and flat.
η : is free
η : is arbitrary
flat
$\eta = \omega K$ is metric:
$ds^2 = dq^2 + q^2 R^2$
$\frac{dq}{dp} \approx 1.045$