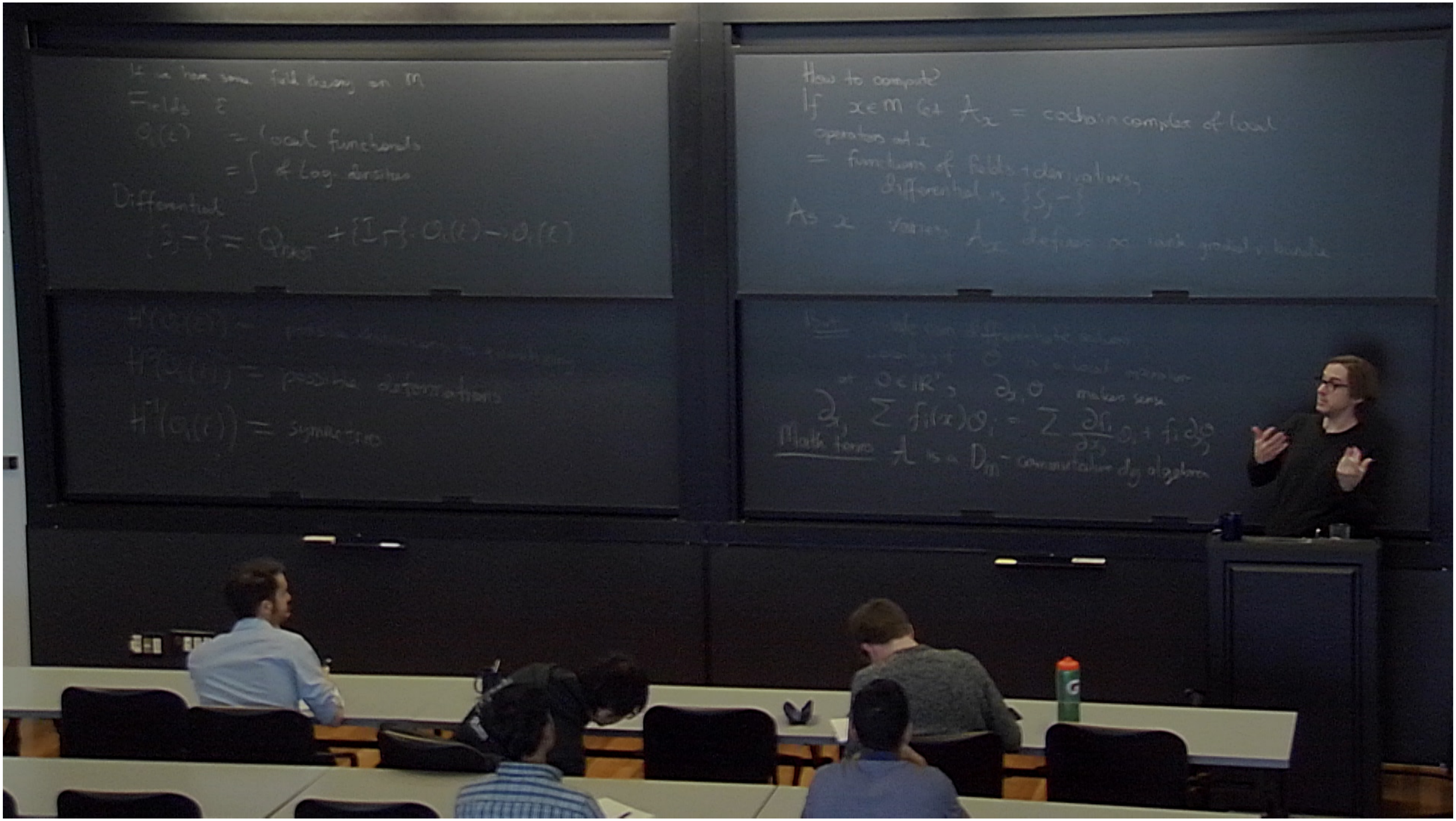
Title: Renormalization and Effective Field Theory - Lecture 13

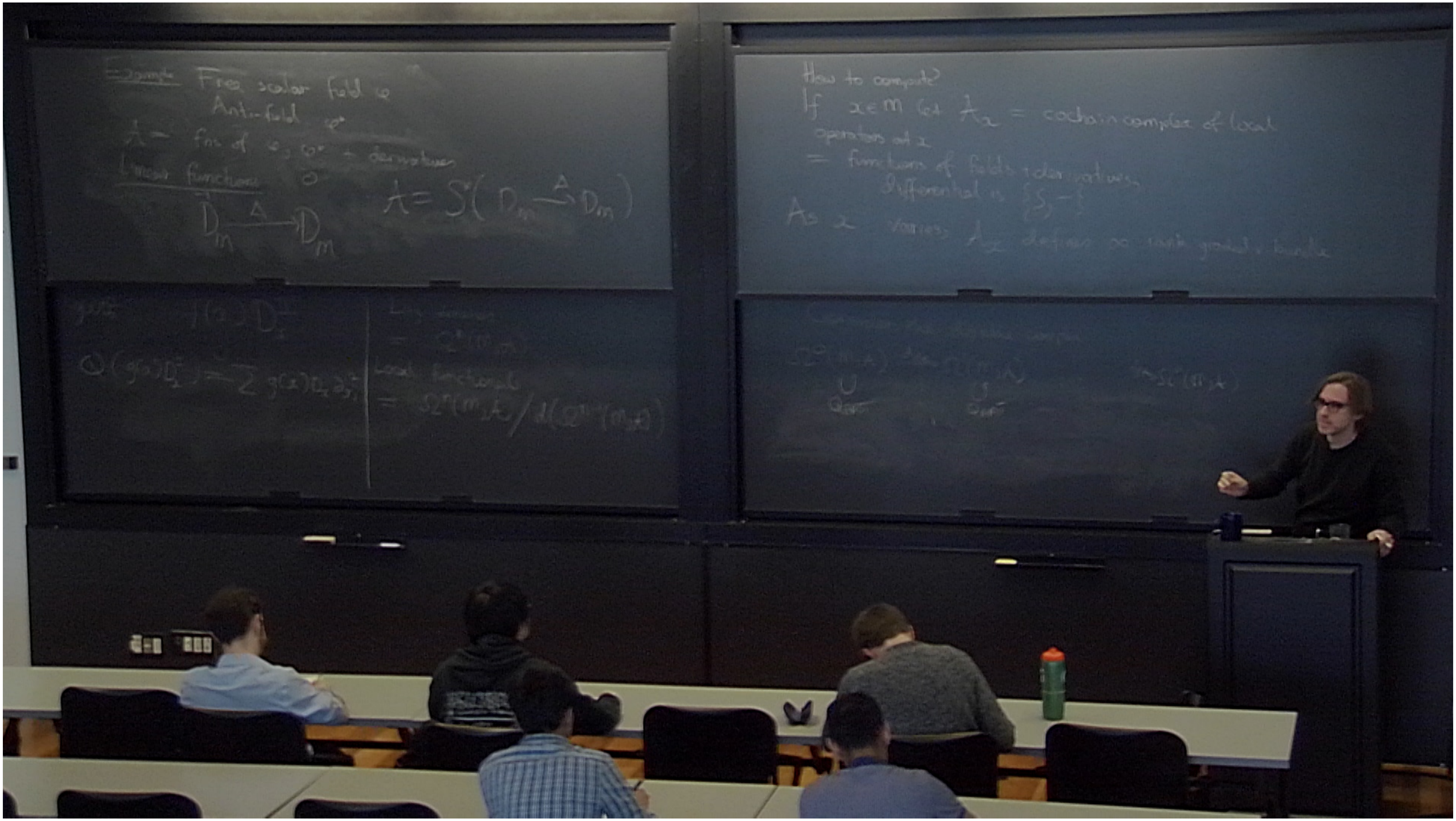
Date: Dec 19, 2018 10:30 AM

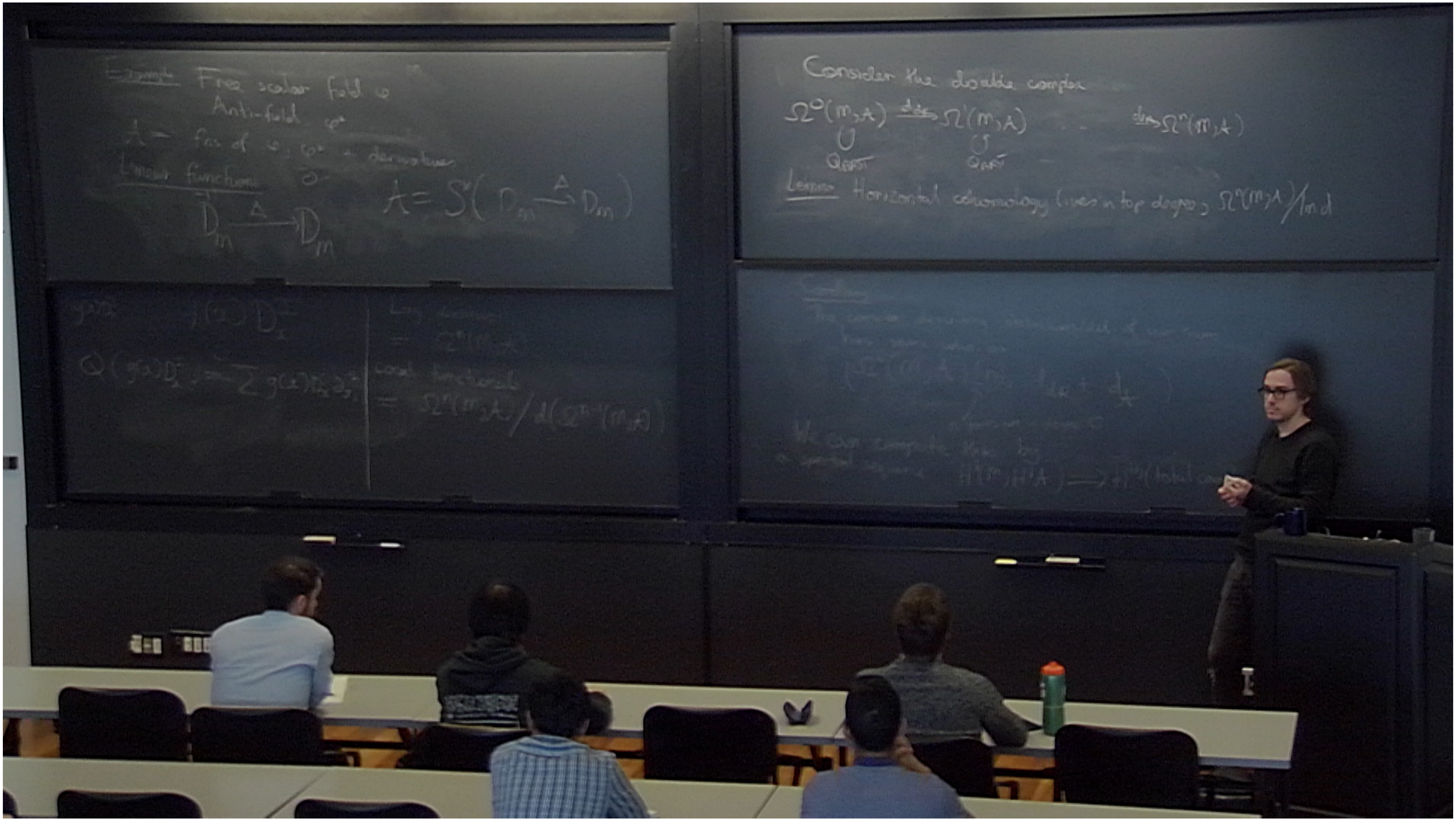
URL: http://pirsa.org/18120026

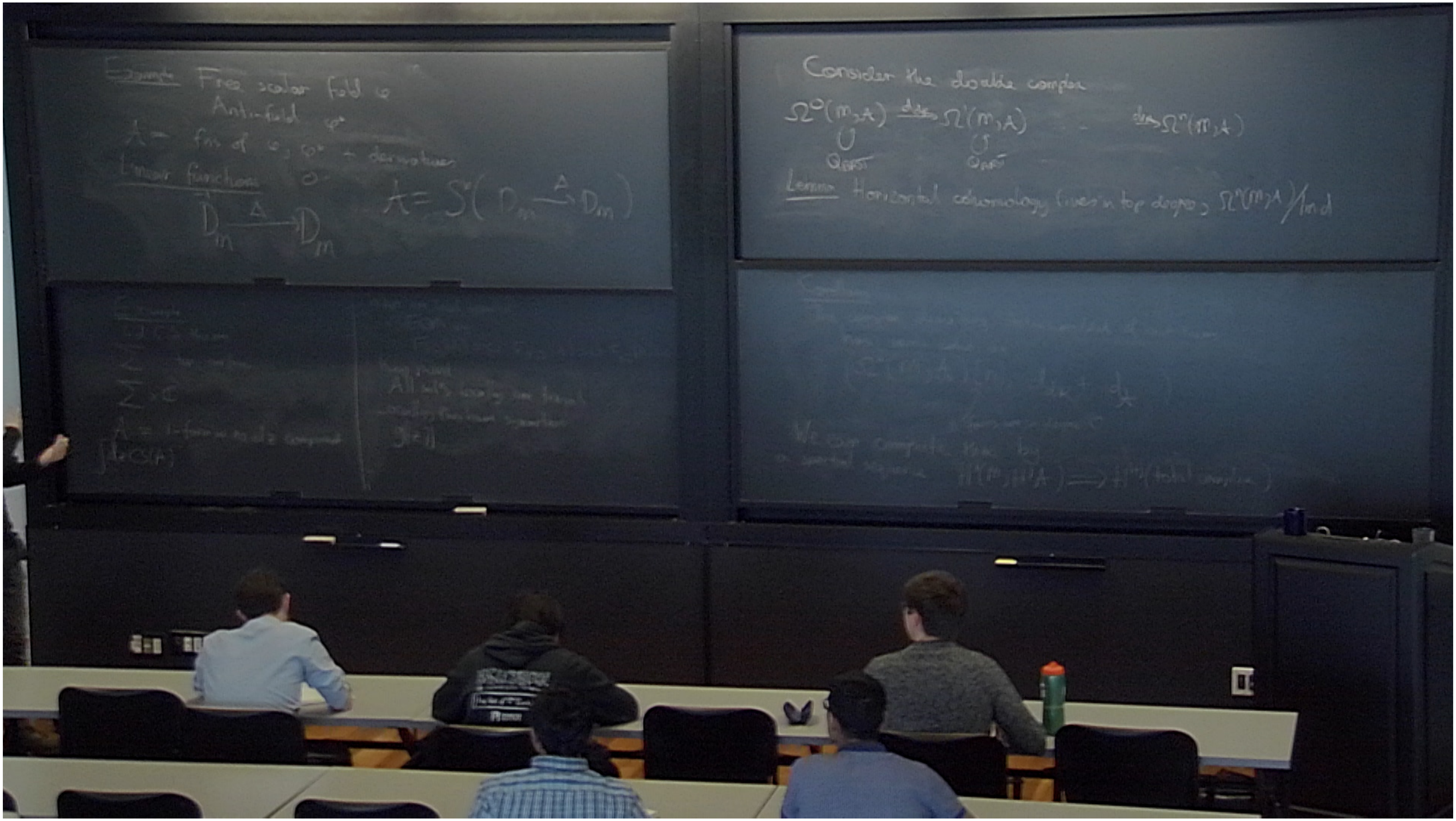
Abstract:



Fields
Differential
How to compute?
Math term


Example Free scalar field φ
Anti-field φ*
A = fns of φ, φ* + derivatives
Linear functions
How to compute?
If x ∈ M let A_x = cochain complex of local
operators at x
= functions of fields + derivatives,
Differential is {S, –}
As x varies A_x defines ∞ rank graded v. bundle
Local functionals


Example Free scalar field φ
Anti-field φ*
Linear functions
Consider the double complex
Lemma Horizontal cohomology lives in top degree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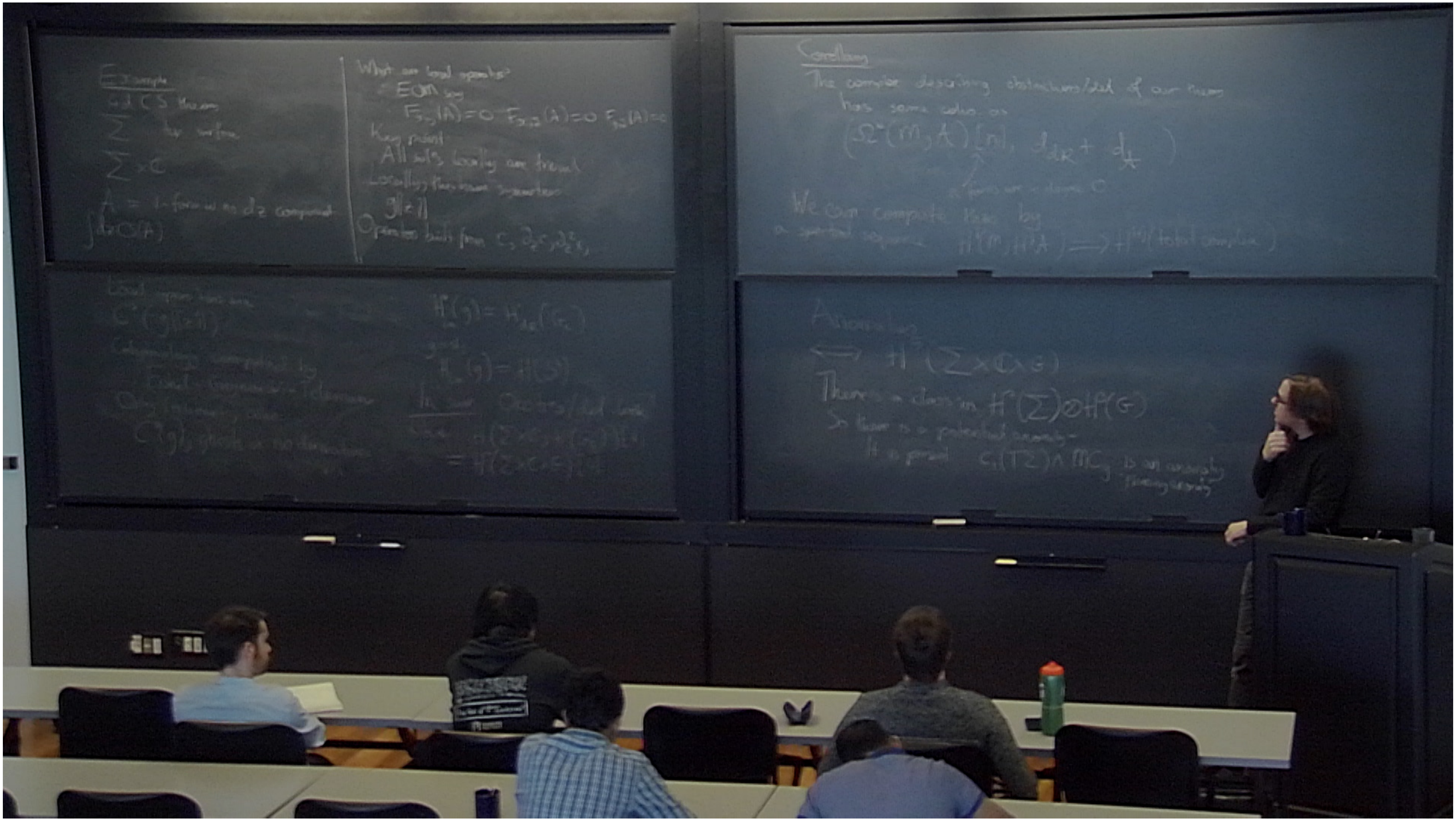
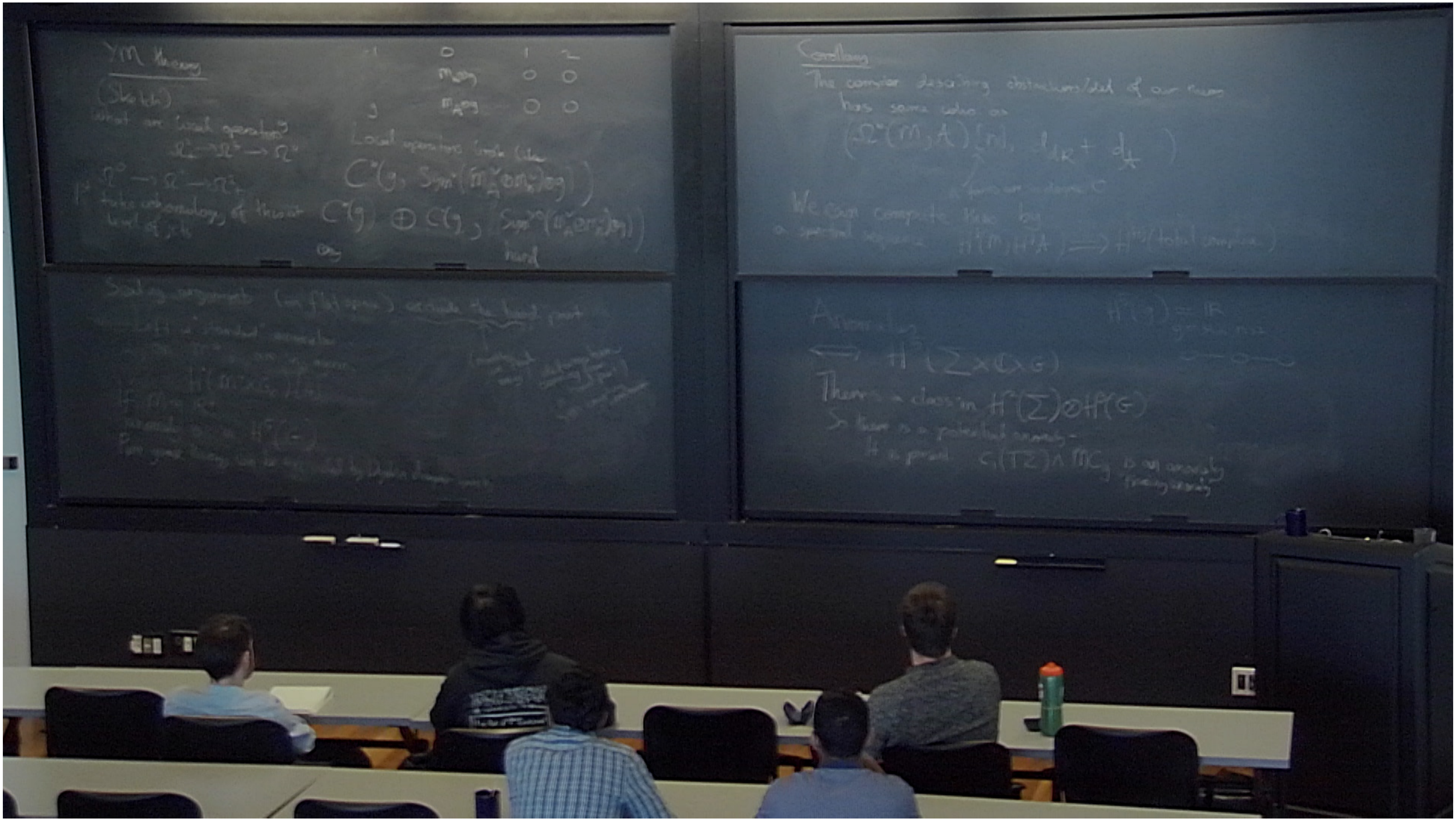

Example
Corollary
Anomaly


YM theory
(Sketch)
Local operators
Corollary
We can compute this by
a spectral sequence
Anomaly
There is a class in