Remote teaching: videocams and whiteboard

***Javier Subils**, Nordita teaching masterclass*

Motivation: personal opinion

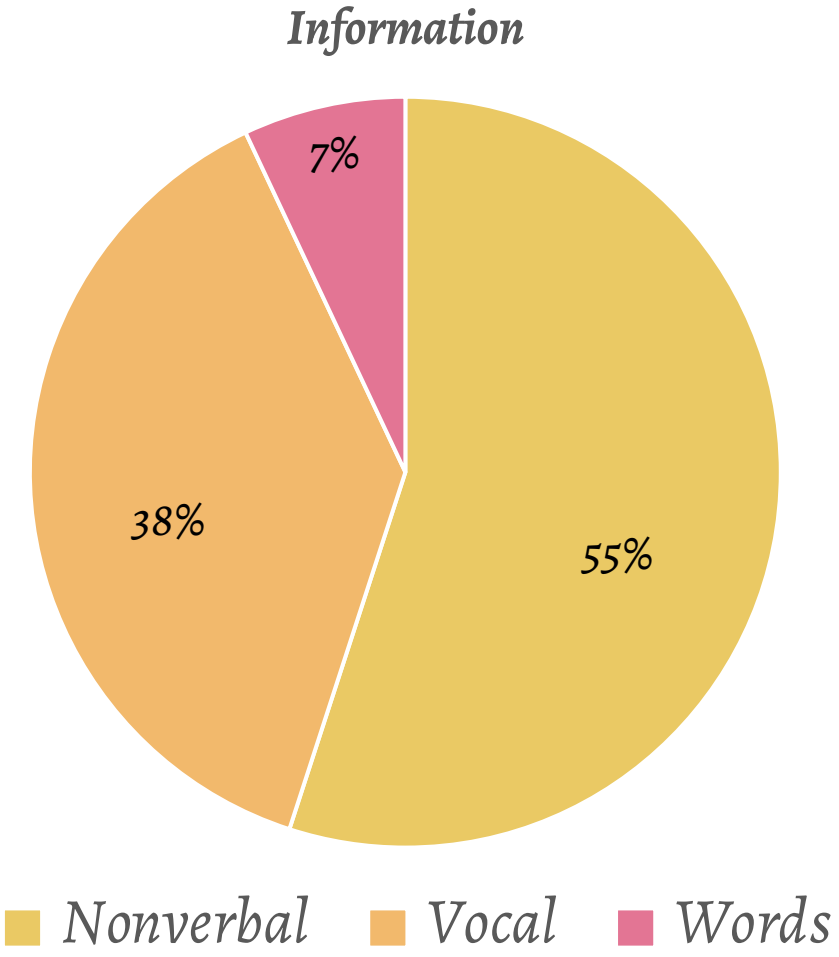
I strongly believe that there are tasks where humans cannot be replaced,

and ***education*** *is one of those.*

This is difficult to prove but easy to agree with…

Goal*: make the process as human as possible.*

Motivation: personal opinion



“TELL ME AND I FORGET. TEACH ME AND I REMEMBER. INVOLVE ME AND I LEARN.”

BENJAMIN FRANKLIN

correction of exams/exercises – feedback – time to answer emails
availability...

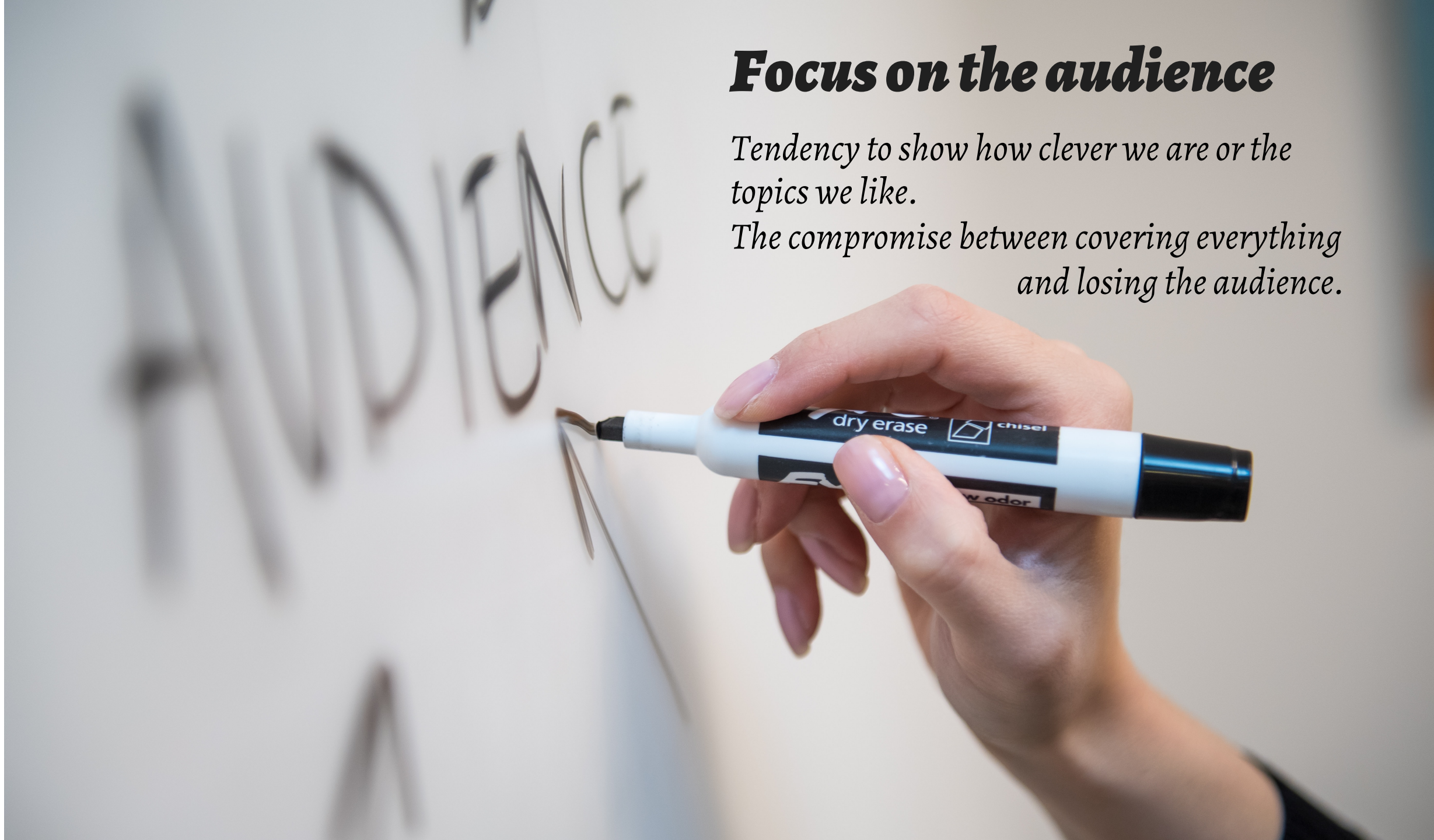
“TEACHING KIDS TO COUNT IS FINE, BUT TEACHING THEM WHAT COUNTS IS BEST.”

BOB TALBERT

cheerfulness – involvement – general advice on academia
general picture

Focus on the audience

Tendency to show how clever we are or the topics we like.
The compromise between covering everything and losing the audience.




The Pygmalion effect

Remote teaching with whiteboard

You will need:

- *a good **camera**,*
- *a good **micro***
  close to the mouth,
- *proper **illumination***
  spotlights,

Further advice

Useful tips:

- ***built-in camera** works pretty well in some cases,*

- *the more stuff there is in your room, the less **echo**. Open the doors,*

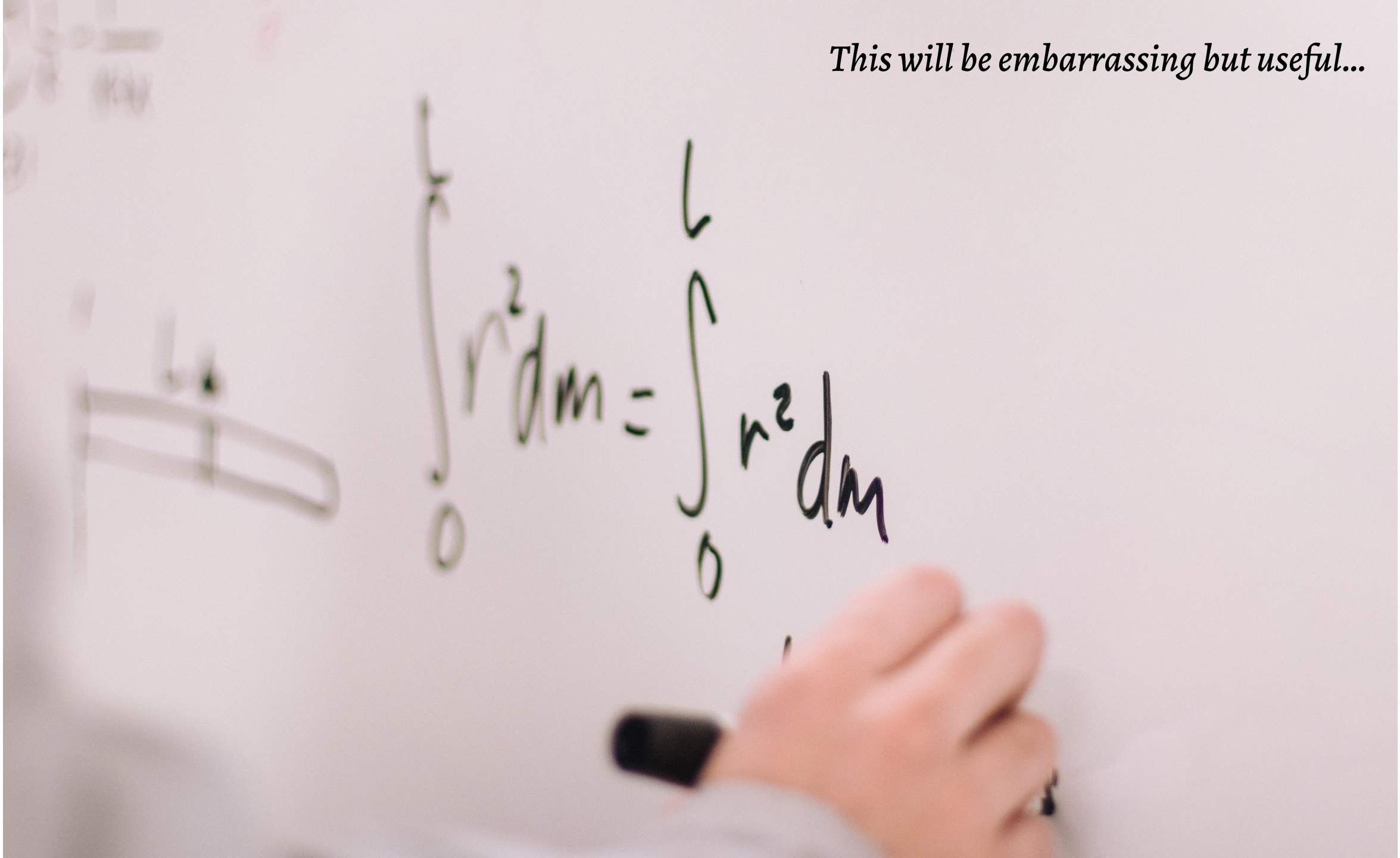
- *avoid the **reflex** of the spotlight on the whiteboard,*

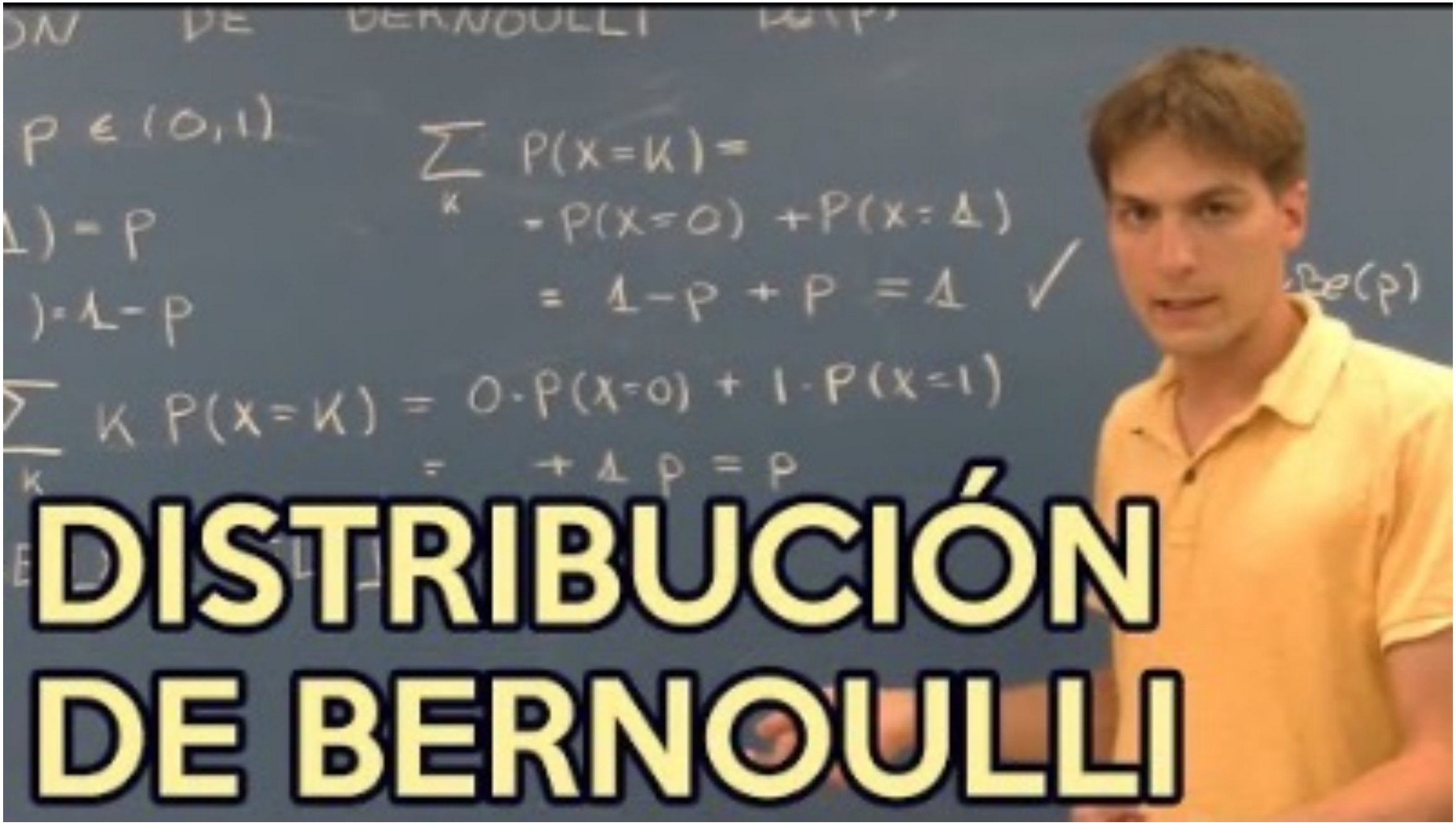
- *ask them to turn their camera.*

Further advice

- *work on your handwriting,*
- *use “share screen” to show complicated material.*
- *avoid the **reflex** of the spotlight on the whiteboard,*
- *ask them to turn on their camera,*
- *look at the camera :)*
- *use thick markers*

This will be embarrassing but useful...



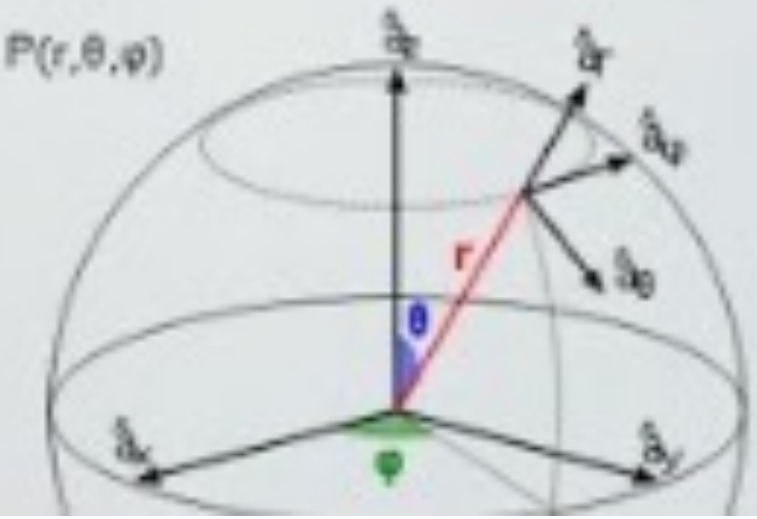

DE BERNOULLI
p ∈ (0,1)
Σ P(x=k) =
P(x=0) + P(x=1)
= 1 − p + p = 1
Σ k P(x=k) = 0·P(x=0) + 1·P(x=1)
= p
DISTRIBUCIÓN
DE BERNOULLI

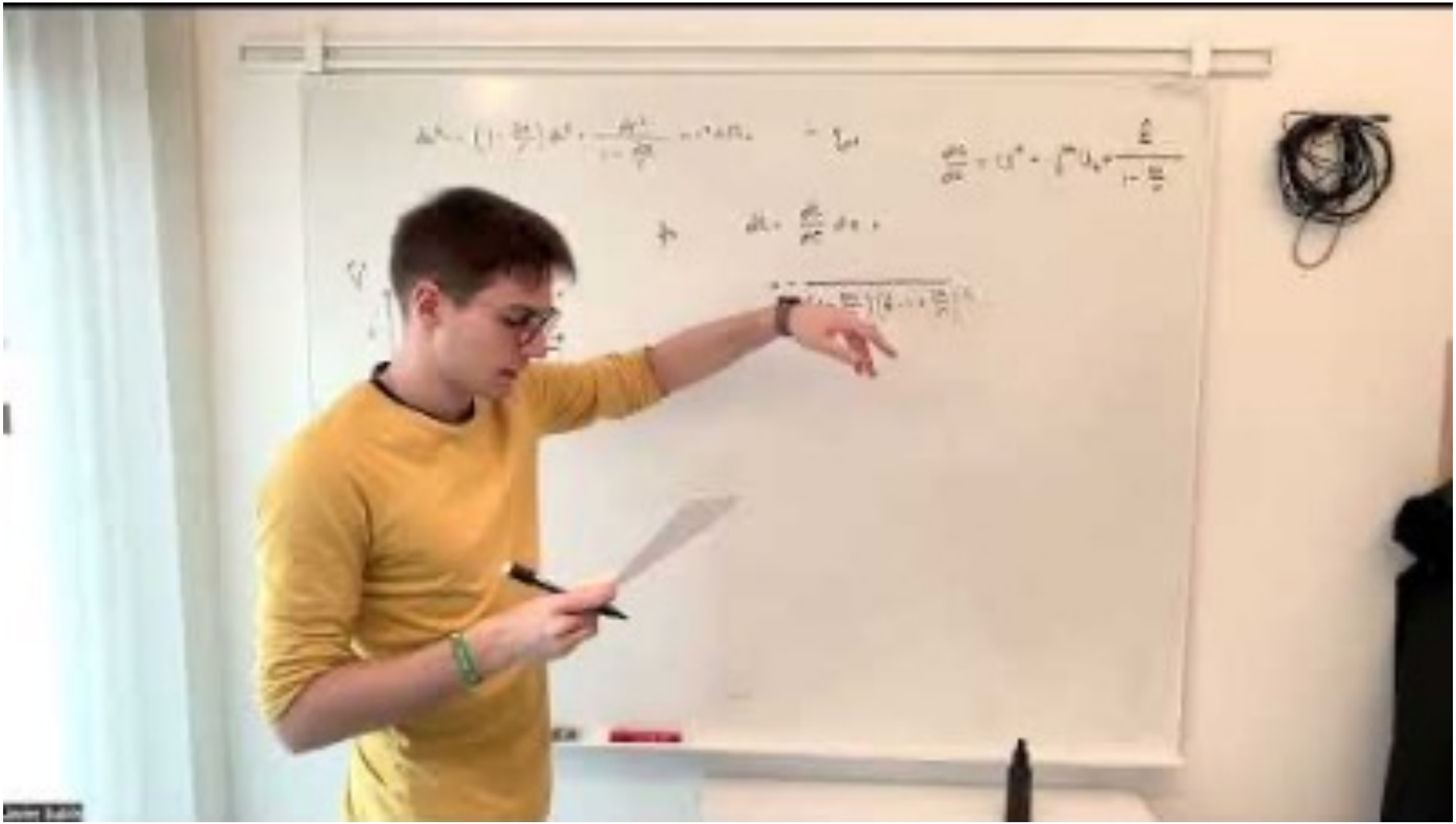
CÁLCULO DE LA INTEGRAL

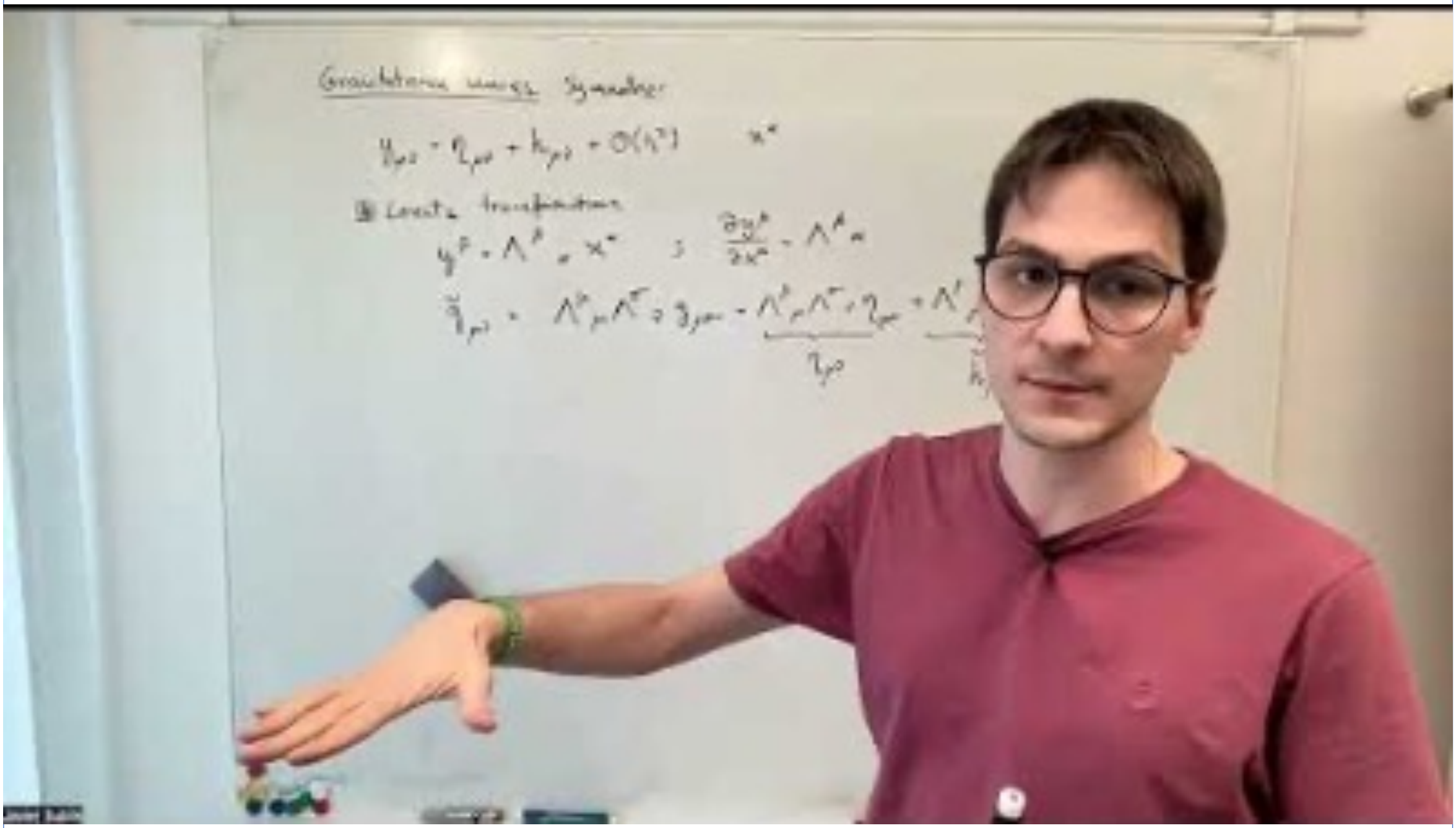
$$\int_{\partial D} \frac{1}{z}\, dz$$

INTEGRAL en coordenadas ESFÉRICAS

$$\iiint_A e^{\sqrt{x^2+y^2+z^2}}\,dx\,dy\,dz$$






Gravitational waves
Lorentz transformations

Thanks.