

Title: Emergent Time Discussion

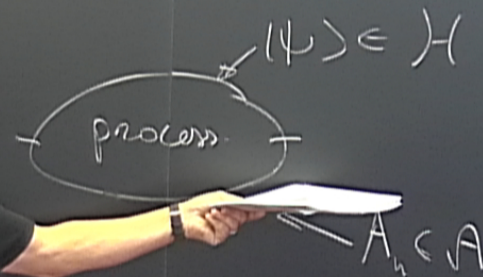
Date: Jun 29, 2016 10:00 AM

URL: <http://pirsa.org/16060115>

Abstract:

LOOP QUANTUM GRAVITY $\Rightarrow (H, \mathcal{A}, W)$ AND TIME

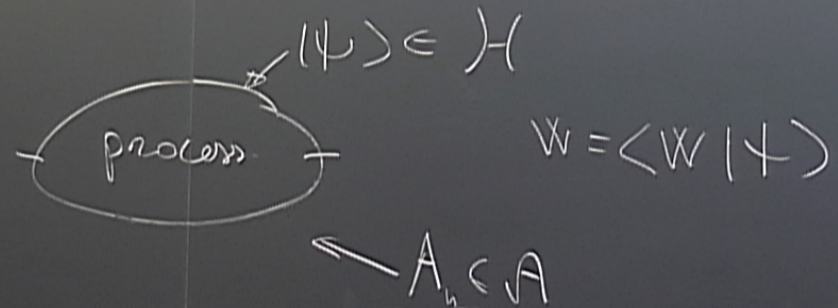
$\Rightarrow$ PROCESS



LOOP QUANTUM GRAVITY $\Rightarrow (H, \mathcal{A}, W)$ AND TIME

$\Rightarrow$ PROCESS

$\Rightarrow$ CHANGE



(H, A, W)

H

$W = \langle W | \psi \rangle$

$H \subset A$

where does TIME c. lie?

↓
local proper
time -

$$T = \int \sqrt{g_{\mu\nu} dx^\mu dx^\nu}$$

(P. H.)

MinM.

$$\varphi_{\mu\nu} \sim m_{\mu\nu}$$

Newton's

small velocity

Directed Time

Post hypoth.

(-?)

Post hypoth?



$\rho, A, W)$

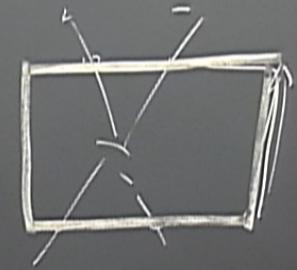
E

where does TIME c. lie?

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$$T = \int \sqrt{g_{\mu\nu} dx^\mu dx^\nu}$$

(P. H.)



$= \langle W | \psi \rangle$

MinM.

$$g_{\mu\nu} \sim m_{\mu\nu}$$

Newton's

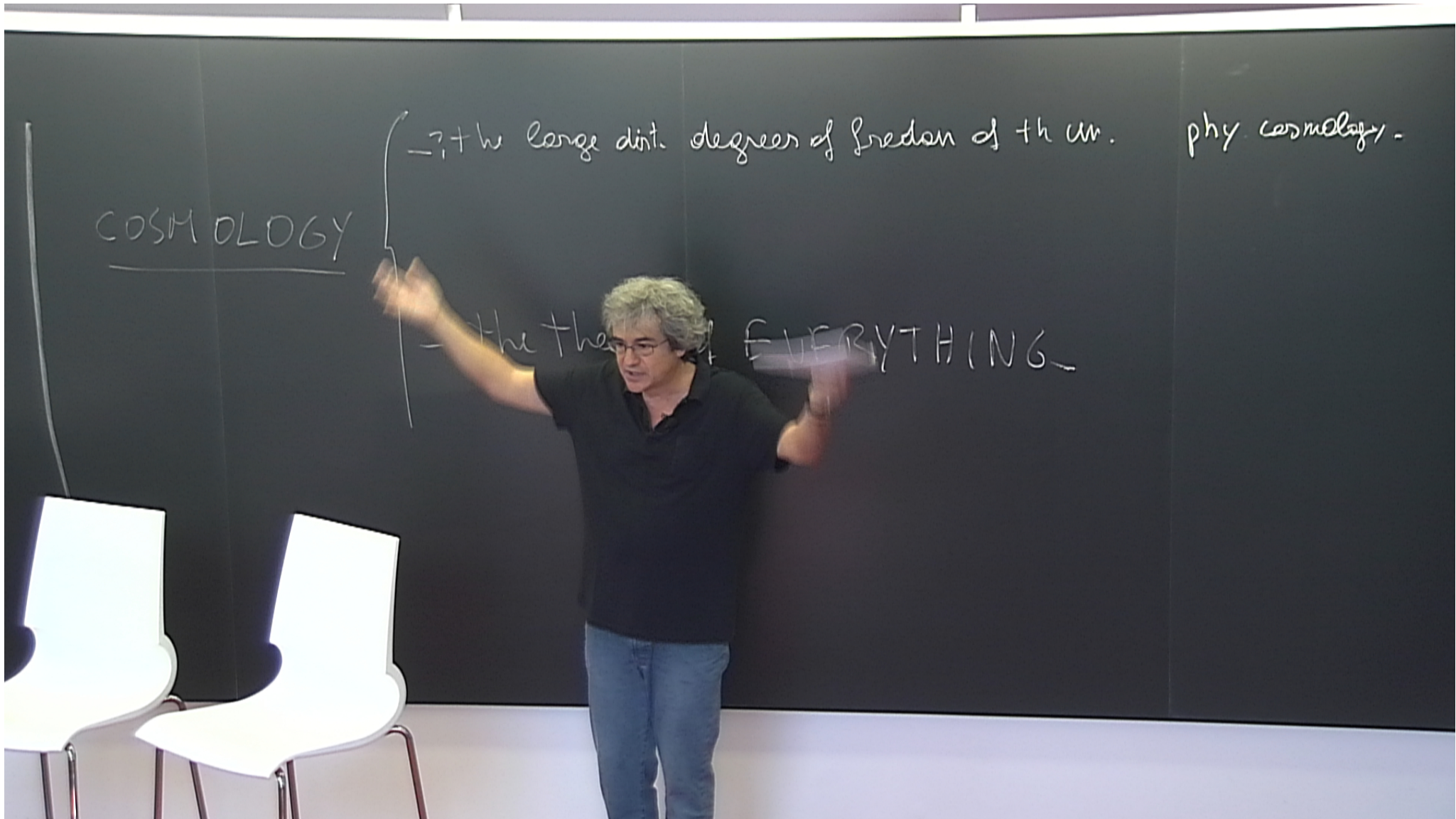
small velocity

Directed Time

Post hypoth.

(-?)

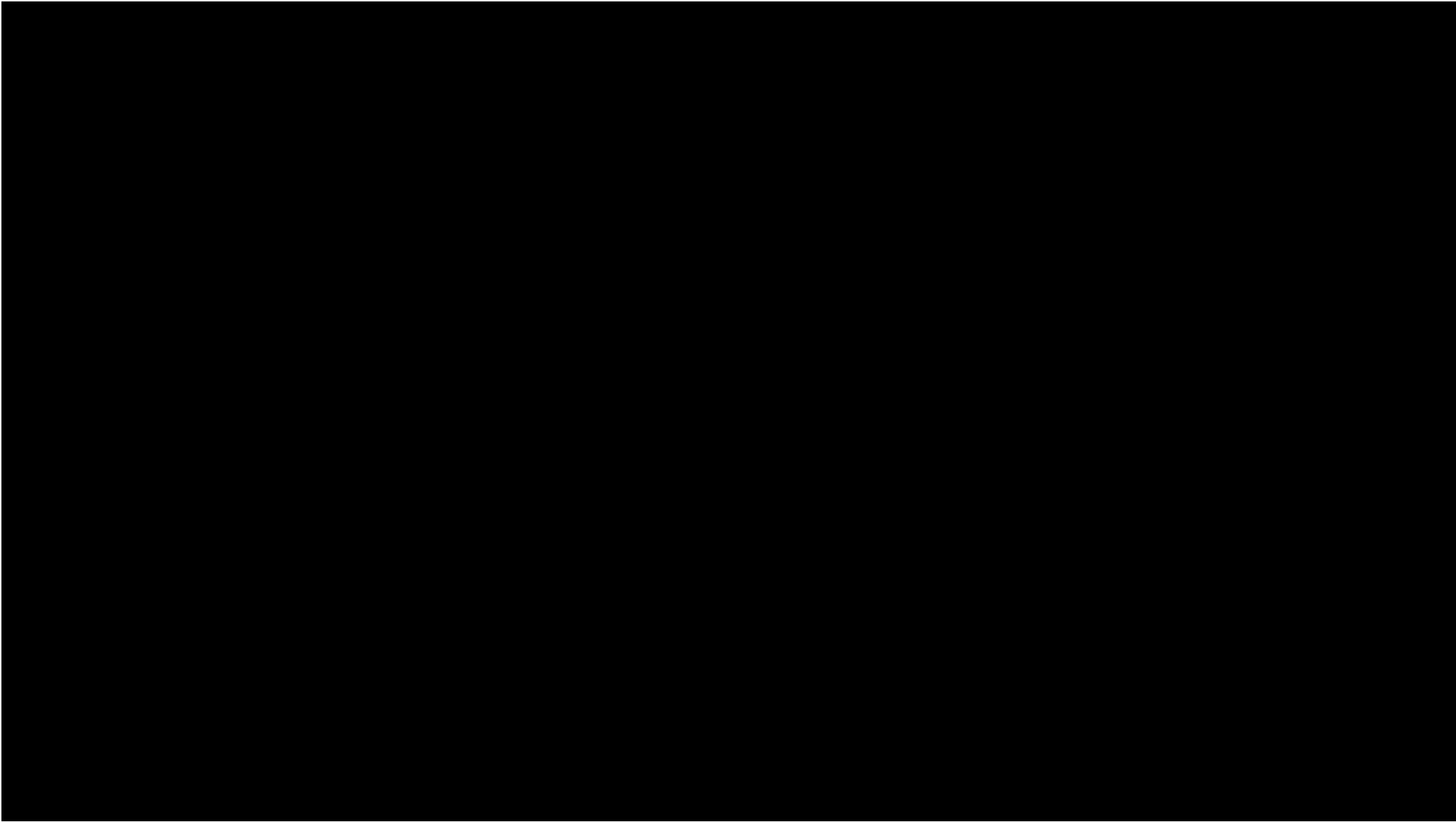
Post hypoth?



COSMOLOGY

{ - the large dist. degrees of freedom of the un.
- the theory of EVERYTHING

phy. cosmology -



Emergent Becoming

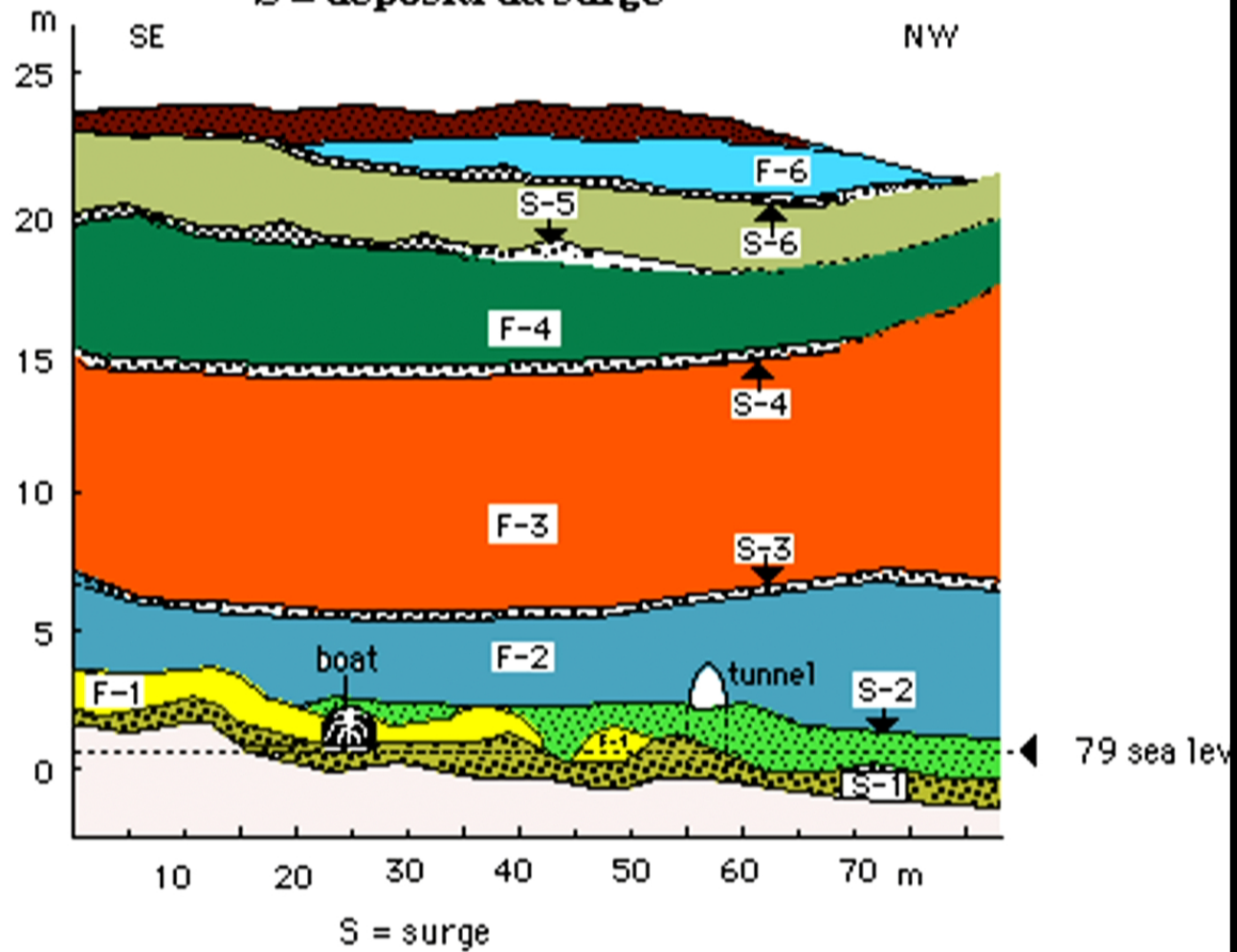
Jenann Ismael
University of Arizona



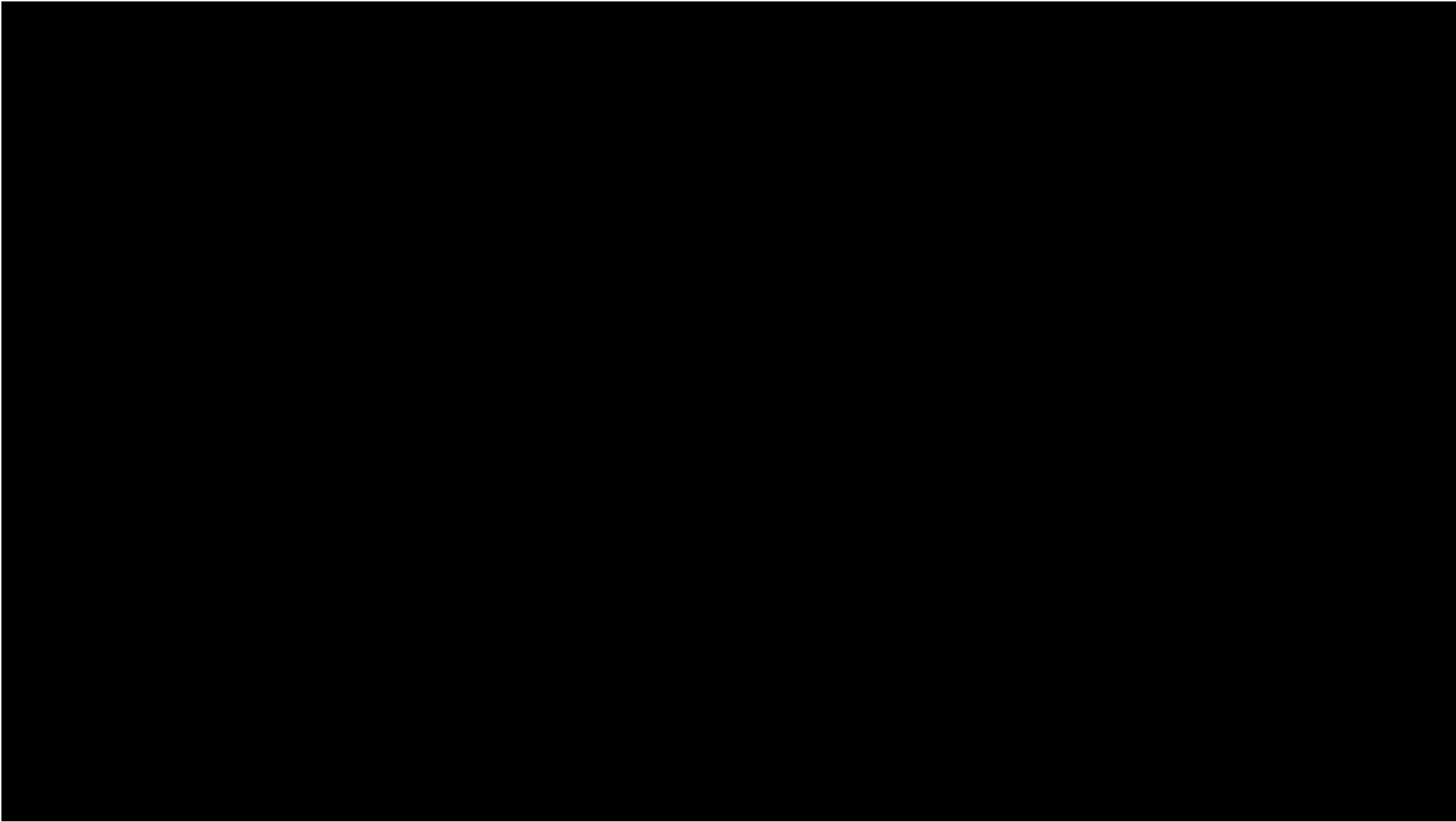
La stratigrafia dei prodotti dell'eruzione del 79

F = depositi da flusso piroclastico

S = depositi da surge









1) $\dot{S} > 0$ vs micro

2) Tuning vs Past Hypothesis

- Sociology

- SBRB "straw man"

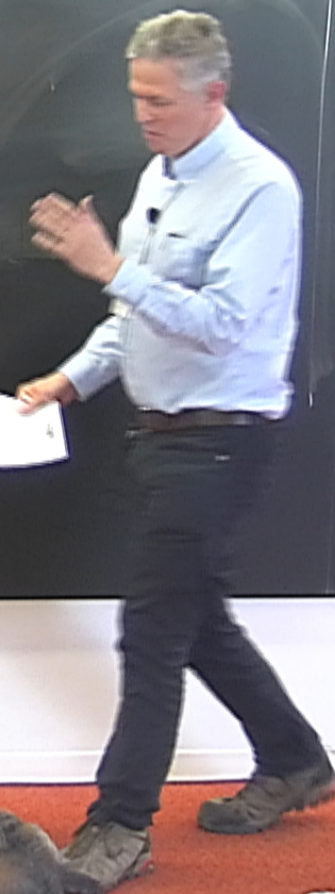
- Tuning $\rightarrow$ Bunch Davies Vac

- Lack of rigor

$\rightarrow \infty?$

$\rightarrow dSE$

3) Prob. + Counting



Prob. + Counting

4) Clock Ambiguity $S = C \oplus R$

$$|u\rangle_S = \sum_i |u_i\rangle_R |t_i\rangle_C$$

$$S = C' \oplus R'$$

