

# Karl Schwarzschild Meeting 2015

Frankfurt Institute for Advanced Studies

*July 20-24, 2015*



**FIAS** Frankfurt Institute  
for Advanced Studies



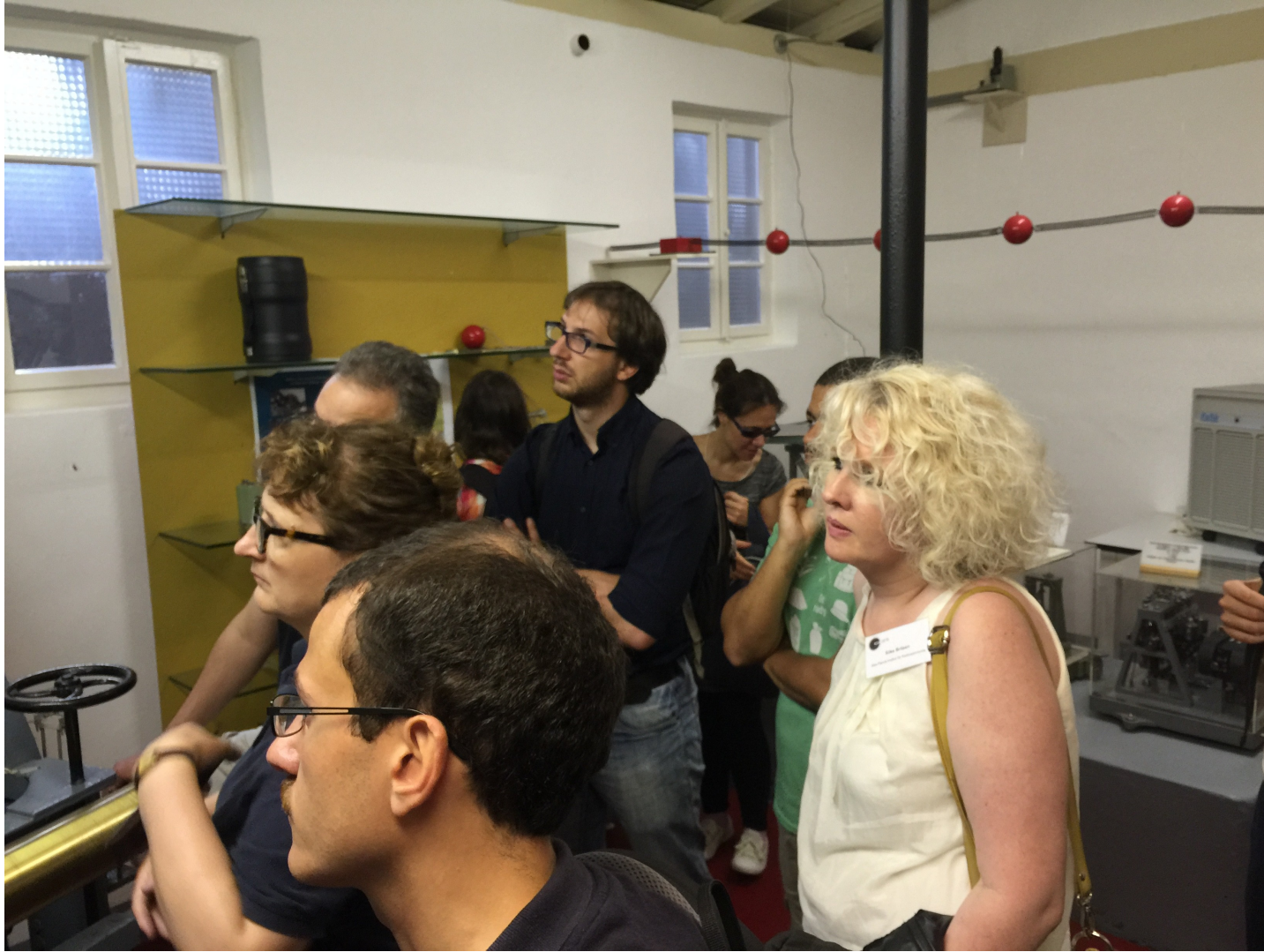


# KSM 2015





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The basic idea:

In the matter Lagrangian:  $\mathcal{L} = \mathcal{L}^{EH} + \mathcal{L}^{\text{matter}}$

$$\mathcal{L}^{EH} = \frac{1}{16\pi G} \sqrt{-g} (R - 2\Lambda)$$

$$\mathcal{L}^{\text{matter}} = \mathcal{L}^{\text{YM}}(A) + \mathcal{L}^{\text{bos}}(A, \phi, g_{\mu\nu}) + \mathcal{L}^{\text{ferm}}(A, \psi, \phi, g_{\mu\nu})$$

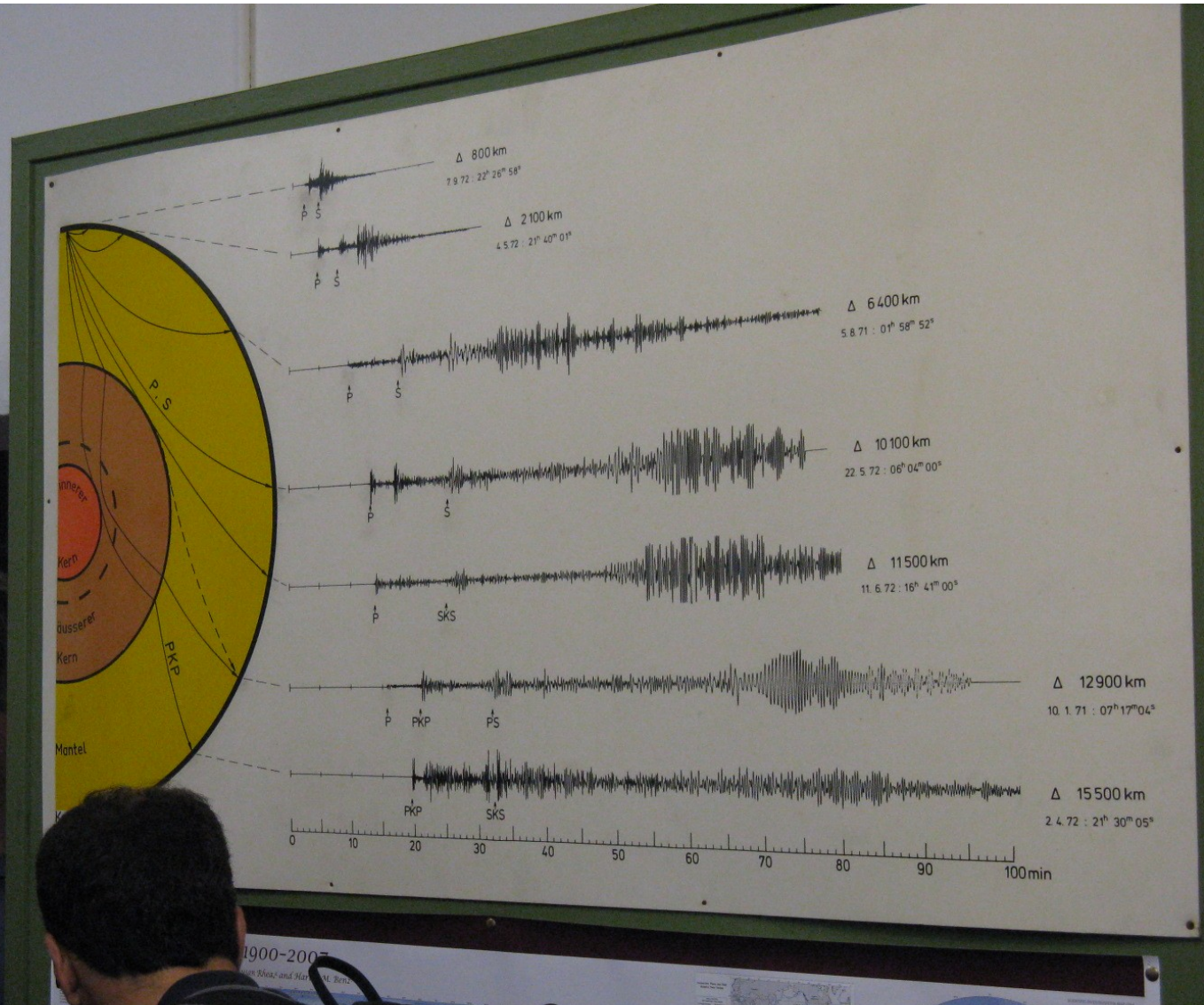
one writes:

$$g_{\mu\nu} = \omega^2(\vec{x}, t) \hat{g}_{\mu\nu} \quad \mathcal{L} = \mathcal{L}(\omega, \hat{g}_{\mu\nu}, A_\mu, \psi, \phi)$$

"Trivial" local conformal symmetry:

$$\hat{g}_{\mu\nu} \rightarrow \Omega^2(\vec{x}, t) \hat{g}_{\mu\nu}, \quad \omega \rightarrow \Omega^{-1} \omega, \quad A_\mu \rightarrow A_\mu,$$
$$\phi \rightarrow \Omega^{-1} \phi, \quad \psi \rightarrow \Omega^{-3/2} \psi$$

# KSM 2015



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- Some numbers
  - 40 plenary talks, 12 talks in parallel session
  - 98 participants from 25 countries (6 continents)





# KSM 2015

- Schwarzschild-Springer Prize Winners

  - A. Frassino (Student session)

  - F. Vidotto (Junior session)

- Honorable mentions

  - Students

    - E. Kur

    - S. Ponglertsakul

    - A. Giugno

  - Juniors:

    - T. Kalaydzgyan

    - C. Stoica

    - M. Gary

# Reminders

- Book of Proceedings

Submission deadline: **September 30, 2015**

- Check our Facebook website!!!

<http://facebook.com/ksm2015>

- Evaluations of the meeting
- Video recording – talks on conference website

# Thanks

- Gerard
- All the key note speakers
- All the participants
- Jonas, Matthias, Marcus, Horst
- Eike, Sven, Elias, Michael, Roman, Alexander
- DFG, H4F, FuFGU, FIAS-GSI, PVF
- I probably miss someone. Please excuse... too tired & slides prepared in the last minute...

Dear Karl, see you in 2017!

