

# Rouven Essig

C.N. Yang Institute for Theoretical Physics  
Stony Brook University

Theory session at Snowmass 7/30/2013

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From Michael Dine's email -- two goals for these sessions:

*to work towards articulating a vision for the role  
of theory in particle physics over the next decade  
and*

*to discuss issues of concern for funding theoretical physics*

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    - to **interpret** data & any “anomalies”
    - to fully **describe implications** for new physics
    - to ensure **no new physics is missed** (i.e. make **full use** of data)
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A vibrant **theory** community is essential in our quest to understand Nature, so supporting it should be obvious

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“theory community” is **diverse**, so getting a consensus view on **all (any?)** points is challenging, but **theory panel report may want to discuss some so that we define the answers, not others**

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- There has been talk about cutting summer salaries (even completely):
  - Is a complete cut really fair/sensible?
  - Should it be tied more clearly to whether research is actually done in the summer?
  - Should reasonable caps be put on?

# Sample Questions

(too provocative for discussion?)

- While **theory** *in general* is *essential for progress*, is all theory equally important?
- What is the **role** of “formal” theory versus “phenomenology”?

We may want to **agree on answers** to at least those questions that **affect theory community as a whole**, rather than have someone else do it for us...