

Title: Opening Remarks

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URL: <http://pirsa.org/17070003>

Abstract:

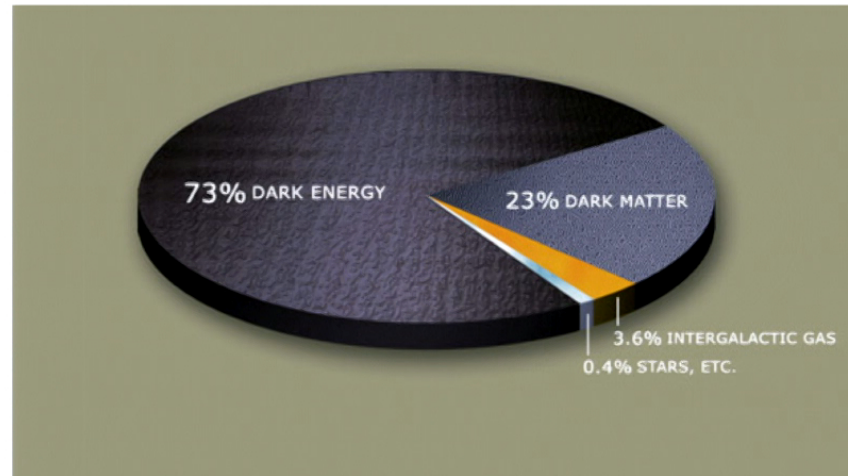
# Welcome to Perimeter Institute “New Ideas...” workshop

*Organizing committee:  
John B, Mark C, MP and Joe B  
(with thanks to Laura and Stephanie)*





# Big Questions in Physics



These problems are so complex that we can spend the rest of our careers trying to solve them

1. Too many good solutions for DM
2. Too few (apart from  $\Lambda$ ) good solutions for DE

# Main questions

- No satisfactory solution will ever come without an experimental verification.
- Are we doing everything possible to address the missing energy/missing mass problem?

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- With significant investment into the underground and neutrino physics ( $N_{\text{underground labs}} \gg 1$ ,  $N_{\text{large neutrino detectors}} \gg 1$ ) do we use these facilities to the fullest?
- New signatures; novel uses of the existing detectors; altogether new experiments?
- What should be the interaction of theory and experiment look like going forward?
- Are there any new creative uses of superb experimental conditions at SNOLAB ?

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- Talks are recorded ← place for “new and creative”
- Discussion sessions are not recorded ← place for “crazy”

**Let's have a productive workshop!**