PITT-PACC Workshop:
Non-Standard Cosmological Epochs and Expansion Histories

Summary Discussion

University of Pittsburgh, Sept. 5th - 7th, 2024

First of All… Thank You!

- To the local organizers for all their hard work in making this happen!
  - Amit Boonah
  - Kun Cheng
  - Matt Low
  - Zahra Tabrizi
  - Gracie Gollinger
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- To all the participants in this workshop for your vibrant, active participation and contributions to the discussion over the past 2.5 days.

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- For example, what sorts of features in the gravitational-wave background might we feel more confident about identifying as signals of non-standard cosmology – as opposed to astrophysics (e.g., PBHs)?
- To what extent can the expansion history be modified after BBN? How compelling is the need to do this in light of the (to use Tristan's helpful phrase) cosmic-calibration tension?

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- To what extent are non-perturbative effects unavoidable During reheating? Are there any general – even if qualitative – lessons to be learned about the way inflation ends, and the universe becomes radiation dominated again – other than perhaps that such non-curative effects generally play a substantial role in the process?

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Would it be worthwhile collectively to distill the content of our conversations over the past 2.5 days into a summary document?