Fundamental Physics Townhall
3 December 2020

Brad Carpenter
Fundamental Physics Program Scientist
Biological and Physical Sciences Division
Science Mission Directorate
Agenda

• Why we are here

• Decadal timeline

• Next generation planning
BPS Decadal Survey Timeline*

- November 2020 – Decadal Task Statement accepted
- Now- Survey work to begin soon
- Early-Mid 2021 – White papers for decadal science solicited
- ESA Voyage 2050 report
- Astro 2020 Decadal Survey
- Mid 2021-Mid 2022 – Panels review white papers, draft findings and recommendations
- Mid 2022-Early 2023 – Committee and Academy peristalsis
- Mid-Late 2023 – Decadal Report released

*My personal estimates
Next Steps Toward Decadal Survey

- Assemble Decadal Committee
- Write Decadal White Papers
- Hold Mission Concept Workshops
- Decadal Panel Meetings
- Write Decadal Report
- Decadal Profit Plan Phase 3
What’s a White Paper?

- Short documents (5-7 pages) that “specifically and succinctly identify new science opportunities and compelling science themes…”
- Solicited and reviewed by the Decadal committee
- A primary source of community input for Decadal consideration
- International participation is encouraged
- White paper authorship often shared
- White paper development often coordinated through a “hub”
Next Steps Today

- Join a splinter session
- Identify subjects of interest
- Look for White Paper opportunities/co-authors
- Contact me to get email for future topical meetings – bcarpenter@nasa.gov
Areas for Decadal Consideration

- Cold Atom Physics
- Quantum Entanglement
- Optical Clock-Based Experiments
- Direct Detection of Dark Energy
- Dusty Plasma Physics Experiments on the Moon
- Complex/Dusty Plasma Physics on ISS
- Other Space Fundamental Physics Research