8:30 a.m. Neumann W. * Breuer D. Spohn T.
Shallow Magma Ocean on Vesta and Implications for the HEDs [#2046]
We show that in contrast to previous studies a whole-mantle magma ocean does not form on Vesta if partitioning of $^{26}$Al is considered.

8:45 a.m. Hoff C. M. * Jones J. H. Le L.
Experimental Constraints on a Vesta Magma Ocean [#1634]
A MELTS-derived magma ocean model for the differentiation of Vesta was experimentally tested, revealing differences between MELTS and experimental data.

A Proposed Time-Stratigraphic System for Protoplanet Vesta [#1381]
We propose a time stratigraphic system and geologic timescale for Vesta, based on geologic mapping and integrated studies of Dawn data.

9:15 a.m. Clenet H. * Jutzi M. Barrat J.-A. Gillet Ph.
Adapted Modified Gaussian Model: No Detection of Olivine in Regions Predicted to be Mantle-Rich from Models of Planet-Scale Collisions [#1349]
MGM dedicated to olivine-pyroxene(s) mixture was applied on Dawn VIR images. Olivine was not found in the Rheasilvia region, arguing in favor of a thick crust.

9:30 a.m. Cheek L. C. * Sunshine J. M.
Spectral Mixture Analysis as a Tool for Characterizing the Distribution of Vesta’s Olivine-Rich Material [#2735]
The geologic context and materials associated with Vesta’s olivine is explored by merging spectral and imaging data to provide clues to their petrologic origin.

9:45 a.m. Lunning N. G. * McSween H. Y. Tenner T. J. Kita N. T.
Olivine from the Mantle of 4 Vesta Identified in Howardites [#1921]
With our identification of the first vestan mantle samples, we can directly examine the evolution of Vesta in ways that were previously not possible.

10:00 a.m. Daly R. T. * Schultz P. H.
How much of the Impactor (and Its Water) Ends up in Vesta’s Regolith? [#2070]
We use experiments at the NASA AVGR to assess projectile survival and water retention from impacts into asteroid regoliths, with direct applications to Vesta.

10:15 a.m. Schäfer M. * Nathues A. Hoffmann M. Cloutis E. A. Reddy V. et al.
Serpentine in Exogenic Carbonaceous Chondrite Material on Vesta Detected by Dawn FC [#1745]
Dawn Framing Camera reveals for the first time an absorption feature in dark material deposits on 4 Vesta that can be attributed to serpentine in CM meteorites.

Surveying Vesta’s Styles of Space Weathering and Surface Mixing [#1208]
Spectral analysis of space-weathering trends in various Vesta terrains, and the nature of the unusually colored material near Oppia crater.
10:45 a.m. Karimi M. * Dombard A. J.

*Studying the Possible Viscoelastic Deformation of the South Polar Craters of Vesta* [2666]

We find these craters are unlikely to have evolved via lower crustal flow, which suggests their high-standing central peaks are a product of their formation.

11:00 a.m. Buczkowski D. L. * DeSanctis M. C. Nathues A. Hoffman M. Roatsch T. et al.

*Vesta’s Dark Ribbon: A Fluidized Ejecta Flow?* [2165]

We propose that a roughly linear unit of distinct material on Vesta, informally referred to as the “dark ribbon”, represents a fluidized ejecta flow.


*Reaction Conditions for Formation of Alteration Minerals on Ceres Inferred from Hydrothermal Experiments* [1698]

We show that low CO₂ concentrations in Ceres are required for formation of brucite, which is inconsistent with the outer solar system origin of the icy dwarf.

11:30 a.m. Rivkin A. S. * Asphaug E.

*The Case of the Missing Ceres Family* [1649]

Ceres’ paradox / Goddess of fertility / Yet no family.