**Nico Kueter**, Carnegie Earth and Planets Laboratory  
*“Tracing the origin of Indonesia’s alluvial diamonds”*  
The alluvial diamond deposits of Kalimantan in Indonesia are mined as early as 1000 A.D. and thus are among the oldest worked diamond mines. Situated in a non-cratic setting unusual for diamonds, the origin of Kalimantan (and SE-Asian) diamonds is curious. The apparent lack of kimberlites or kimberlite indicator minerals, the proximity to ultramafic bodies, and the unusual alluvial association with detrital gold, platinum, tektites and agates resulted in numerous speculations about the primary origin of Kalimantan diamonds. To shed light on the geological history of Kalimantan diamonds, we took a closer look on diamond surface features and the zircon provenance of diamond-associated sediments in Southeast Kalimantan. As result of this combined approach, we propose a classical primary kimberlitic origin followed by extended episodes of tectonic displacement of primary kimberlitic and secondary placer deposits, which were later reworked during the local orogenic episodes that formed the SE-Asian continental core.

**Mariah Baker**, Smithsonian National Air and Space Museum  
*“Orbital and in situ assessment of the aeolian environment at Glen Torridon, Mars”*  
The Mars Science Laboratory (MSL) Curiosity rover spent a full martian year exploring Glen Torridon, a ~500-km-wide, clay-rich trough situated along the northwest flank of Aeolis Mons in Gale crater. Data acquired from MSL, in conjunction with orbital images acquired from the High Resolution Imager Science Experiment (HiRISE) camera, suggest that the trough has likely served as a long-term conduit for sand transport, possibly undergoing successive cycles of net accumulation and deflation. Along its traverse in Glen Torridon, MSL encountered a diversity of erosional and depositional features, including multiple generations of bedform, implying a long and varied aeolian history. In particular, the contrast between active ripples exhibiting low-cohesion and low-albedo and coarse-grained bedforms exhibiting high-cohesion and high-albedo imply a significant change in local environmental conditions over time. Small-scale abrasion features in Glen Torridon mudstones indicating sand transport towards the ~southwest need to be reconciled with those in nearby sandstones which imply strong transport in the opposite direction. Modern wind indicators such as impact ripple migration, erosion of drill piles, and soil wind tails suggest the potential influence of a seasonally-forced, bimodal wind regime with dominant northerly and easterly components. These observations are broadly consistent with atmospheric model results which predict enhanced potential for aeolian activity during local spring and summer when regional winds from the north interact with katabatic winds flowing down Aeolis Mons from the east. While some local-scale discrepancies exist between model predictions and field evidence of contemporary flow patterns, data generally support the interpretation that sediment in Glen Torridon is currently being blown towards the west/southwest as part of broader intracrater transport pathways.

**Jonathan Arthur**, American Geosciences Institute  
*“Scanning the Geoscience Horizon — a View from AGI”*  
The geosciences are in flux, with societies and associations considering their future, academic programs exploring new paradigms, student enrollments in decline, and effects of the energy transition being felt, such as professional lane-shifting and retirements. AGI is working with the geoscience federation to keep its collective eye on the ball, while at the same time, working toward rebuilding its capacity to represent
and serve the geoscience community by providing collaborative leadership and information to connect Earth, science, and people. You're invited to hear an update from AGI's new executive director, and news of AGI's impactful projects, as well as a glimpse into the future of the geosciences.