Quick Summaries:

**(2020)TerrainMappingandPoseEstimationforPolarShadowedRegionsoftheMoon**

This paper discusses the MoonRanger which is scheduled for a NASA 2022 CLIPS mission. This system will use a light striping method and monocular camera to create a terrain map for navigational purposes. This method relies on the localization information gathered from the EKF data fusion of the IMU and wheel encoder information. Paper discusses difficulties in directly translated earth based equations to the moon as well as why it is critical that the localization information be accurate both in and out of shadowed regions (where system will be completely reliant on EKF localization). Also at beginning of paper discusses the size, sensor, and computational limits of space based platforms which again makes it essential for systems to be simple and low cost.

**(2008)DarkNavigation\_SensingandRoverNavigationinPermanentlySHadowedLunarCraters**

Discusses the calculations and assessments made to estimate the likely terrain features a rover would need to handle in the permanently shadowed regions of the moon. Mostly focuses on various types of laser scanner methods of mapping but does emphasize the need for accurate pose information and the need to reduce noise from imu readings. Otherwise not super relevant to LitReview area of interest