

Basin-forming projectile populations on the Moon, Mars, and Mercury through time

S. Werner¹

¹Centre for Earth Evolution and Dynamics (CEED), University of Oslo, Norway

Basin-formation ages for Moon, Mars and Mercury are determined by cratering statistics, compared and evaluated with respect to their maximum surface ages and available isotope ages, and two possible solar-system-evolution models. The basin-formation pattern derived with the standard monotonically decaying or the sawtooth-like Nice- model flux does not reveal a coherent picture according to the late-heavy-bombardment idea. An offset between the basin size-frequency distribution, the smaller crater size-frequency distribution and the main-belt asteroid size-frequency distribution is observed in all three cases, which is discussed in terms of basin-formation process.