Figure 3. from Realistic On-the-fly Outcomes of Planetary Collisions: Machine Learning Applied to Simulations of Giant Impacts

$$y = f(x)$$

OUTCOMES	IMPACT CONDITIONS
1st & 2st largest remnants • **Mass** • Orbital elements • Rotation states • Post-impact composition Mass of the debris field …	**Mass of the target** **Mass of the impactor** **Impact angle** **Impact velocity** Composition Pre-impact rotation states …