

発表者プロフィール / Presenter Profile



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発表テーマ/ Presentation Topic	Surface ages of the distant alien terrain - the icy satellites in the outer solar system

プロフィール Profile

自己紹介/Self-introduction

Started as an Observational Astronomer, I gradually changed to Planetary Sciences. I have always been fascinated by outer space and ponder what these alien worlds are like and what other mysteries await us as we continue to explore these remote habitats. My curiosity has compelled me to embark on not only an academic career in planetary science but also an endeavour to be a future space pioneer, my wildest dream.

研究分野について/About study field

Impact craters are the dominant feature on most extraterrestrial solid bodies, such as the icy regular satellites of Jupiter, Saturn and Uranus. Their distribution provides clues about the source of impactors and helps us estimate the age on these alien terrains. To compute the ages, we need to gather impact craters data from both observational and theoretical means. My studies focus more on the latter, in which I ran computer simulations to recreate the evolution of the solar system from 4.5 billion years ago up to around the current time. In the end, we calculated the impact rates and the crater densities on the surface of the icy regular satellites. In the presentation, I would explain more on how that information helps us estimate the surface ages.

視聴者へのメッセージ Message to viewers

It's my pleasure to take us on a journey to the outer solar system and time-travel back to 4.48 billion years ago. We will see how the giant planets underwent a chaotic migration. They scattered the small particles, called planetesimals, all over the Solar System. Some of the planetesimals collided with the planets and their satellites. The key in knowing the surface ages of the icy regular satellites is to know the impact flux and the resultant crater densities on those satellites throughout the Solar System's evolution. It is profound that we could perceive this world beyond our own Earth and unlimited by the present time frame.