

Formation of Martian Moons via Giant Impact:

Towards Martian Science

(新たな衝突仮説に基づく火星衛星の起源と火星サイエンス)

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ABSTRACT

There are two leading hypotheses about origin of Martian moons, that is, “capture origin” and “impact origin”. At this moment, we do not know which hypothesis is correct. Moreover, detailed process for each hypothesis has not been investigated. Here we recently succeeded making Martian moons based on “impact origin”, but we do not deny capture origin. Their origins will be revealed by future sample return mission (MMX). Here we review our recent work about formation of Martian moons via giant impact, and we discuss the science about Mars itself.