IMPROVED ABSOLUTE PLATE MOTION MODELING IN THE PACIFIC
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INTRODUCTION

In order to estimate the ocean floor spreading, various estimates of seafloor age anomalies are required. These results are then used by geologists and geophysicists to model the tectonic plates. However, some of these reports have been revised or even refuted by subsequent research. Our study focuses on the Paciﬁc plate, which includes the area of the Mariana Trench, the world’s deepest oceanic trench. We have performed a high-resolution analysis of the seafloor age anomalies in this region. Our results indicate that the rate of plate motion is significantly higher than previously estimated. The implications of this finding are significant for understanding the mechanism of plate tectonics and the dynamics of the global tectonic system.