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**Contemporary Challenges of Space Debris Removal:
Overview and Outlook**

Abstract in English

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Abstract

The sustainability of the outer space environment is necessary for all actors to execute all existing and future human space operations safely. While the severe negative consequences of the uncontrolled space debris population are not new, government agencies and intergovernmental organizations' initiatives to lessen the predicament continue to be insufficient. Scientific research and simulation models show that mere mitigation measures cannot stop the ongoing degradation of the outer space environment polluted from the past space missions. Instead, research supports the development of space projects designed with a primary objective to remove debris from space. National administrations attempt to cooperate at the international level to formulate uniform debris mitigation standards and hold each other mutually accountable for worsening the space debris situation. However, joint public international missions to actively remove debris remain unthinkable. The privatization of space projects and operations continues to open the door to the commercialization of space and reduces the relevance of states as the primary players dominating the outer space domain, adding another dimension to solving the issue of space debris. This thesis examines the unrealized potential of operational debris missions while also investigating their ever-present technical and legal obstacles. The thesis contends that outer space's future stability depends on private entities' aspirations and accomplishments to develop and execute active space debris removal missions and the international community's willingness to give way to private entities to become self-sufficient space actors.