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Beamed Energy Propulsion for Micronautics

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ABSTRACT

There is no question or doubt that Beamed Energy Propulsion (BEP) will have a great future in space transportation. The question is: are there any fields of application for BEP beyond astronautics and aeronautics? The striking example of such field with a great potential for BEP is *micronautics*: the autonomous navigation in microspace. Although the term “micronautics” in the given context was just recently introduced by the authors, the concept behind it is not new and it was discussed before at this conference. The revolutionary advent of nanotechnology demands the development of novel ways of microtransport, and beamed-energy propulsion has a set of unique capabilities, unattainable by other means for transportation in microspace. This paper will discuss how the advantages of BEP, primarily 4P Rule, can be applied for micronautics. The existing sources of beamed energy and related physical principles of energy conversion in microspace will be reviewed.