

INTERSTELLAR BEAMER ENGINEERING

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Abstract: The fundamental differences between solar sails and interstellar beam Riders is presented. Design requirements and design considerations are developed for an interstellar beamer phased array of gigantic proportions for photon pushing beam riding spacecraft to significant fractions of the speed of light.

The design approach, a design control table, suggested means for fabricating and constructing, required phase control, calibration, pointing, maintaining and developing the infrastructure in support of the beamer are presented. The sun is the power source and the techniques for coherent energy conversion are presented. Considerations for beam safety and beamer security are discussed.

A suggested asteroid is selected for providing raw materials and a construction base. Orbit and pointing considerations are discussed.

Means for financing and the economics of the beamer are presented, along with comparisons of the World's energy production and some rate of asset growth histories for putting such a large endeavour into perspective.

Electromagnetic wireless power transmission is reviewed, along with current investigations and predictions for the future are given.