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Optimal control of stretching process of flexible solar arrays on spacecraft based on a hybrid optimization strategy

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*Highlights (for review)

H I G H L I G H T S

- The optimal control problem of stretching process of solar arrays on spacecraft is discussed.
- The elastic deformation of flexible solar arrays is described approximately by the assumed mode method.
- A hybrid optimization strategy based on Gauss pseudospectral method and direct shooting method is proposed.