明治大学先端数理科学インスティテュート

MIMS現象数理カフェセミナー

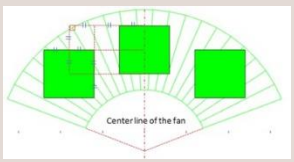
日時：2020年11月25日(水) (13:30 – 14:10)

場所：今年度はZoomでのリモート開催となります

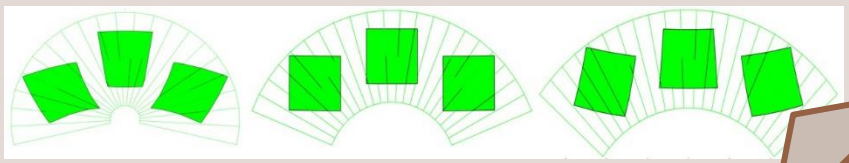
Mathematical elucidation of the traditional Japanese fan focusing on its structure

Keiko Yamazaki （Meiji Univ. MIMS）

Abstract ： Japanese traditional fan has the variety of 3D expression that does not arise in 2D expression. The painted image on the fan deforms, when it is folded into convex-concave configuration and fixed to the bamboo bones, due to the difference between the shrinking percentage of the outer arc and the inner arc. In this study, we try to have the digital fan model for clarifying the deformation on the fan face due to some parameters such as length of the bones. We also validate the digital model with the actual fan. Further, we try to obtain the original plan view from the images of the folded fan as one of the reverse problems.



.Fan face with three squares



Distorted surface images on the model fans of different length

問い合わせ： Takashi Yamamoto

Email: ytaka@meiji.ac.jp