

## عنوان مقاله:

Study of the Damage Shape on the aerodynamics of an airfoil

## محل انتشار:

هشتمین کنفرانس انجمن هوافضای ایران (سال: 1388)

تعداد صفحات اصل مقاله: 5

## نویسندگان:

F Rasi Marzabadi - *Acrospase Research center, Ministry of science, research and Technology*

M mani - *Acrospase Research center, Ministry of science, research and Technology*

F Ajally - *Acrospase Research center, Ministry of science, research and Technology*

M Saeedi - *Acrospase Research center, Ministry of science, research and Technology*

## خلاصه مقاله:

Aerodynamic behavior of the damaged airfoil with four shapes of circle, right and inverse triangles and star was numerically investigated. The flow through the damage was driven by the pressure differential between the upper and lower wing surfaces. For all damage shapes, the results showed that the flow could be categorized as weak or strong jets. The jet exited the rear of the damage and its size was determined by the width of the rear part of the hole and was dependent on the shape of the damage. Generally, when compared with an undamaged model, increasing the angle of attack for a damaged model resulted in increased loss of lift coefficient, increased drag coefficient and more negative pitching moment coefficient. This effect was more severe for the right triangle case.

## کلمات کلیدی:

Damage, shape, effect, airfoil, weak jet, strong jet

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/75632>

