Student Assistant

Post-Process of Labyrinth Seal Test Rig Experiments


```
alpha_offset=[0];

% [Kali_Name, Kali_Path]=uigetfile('.mat', 'Kal
%              load(fullfile(Kali_Path, Kali
try
    test=Kal_Array_plus;
catch
    Kal_Array_plus=[];
    Kal_Array_minus=[];
end

YAC=Kal_Array(:,ismember(Array_header,'YAC'));
```

RLP_P_2_12_K3_W140_5_2_S [Pa]
5117,251994
5127,920504
5120,80926
5120,80926
5127,920504
5120,80926
5122,584605
5126,141871
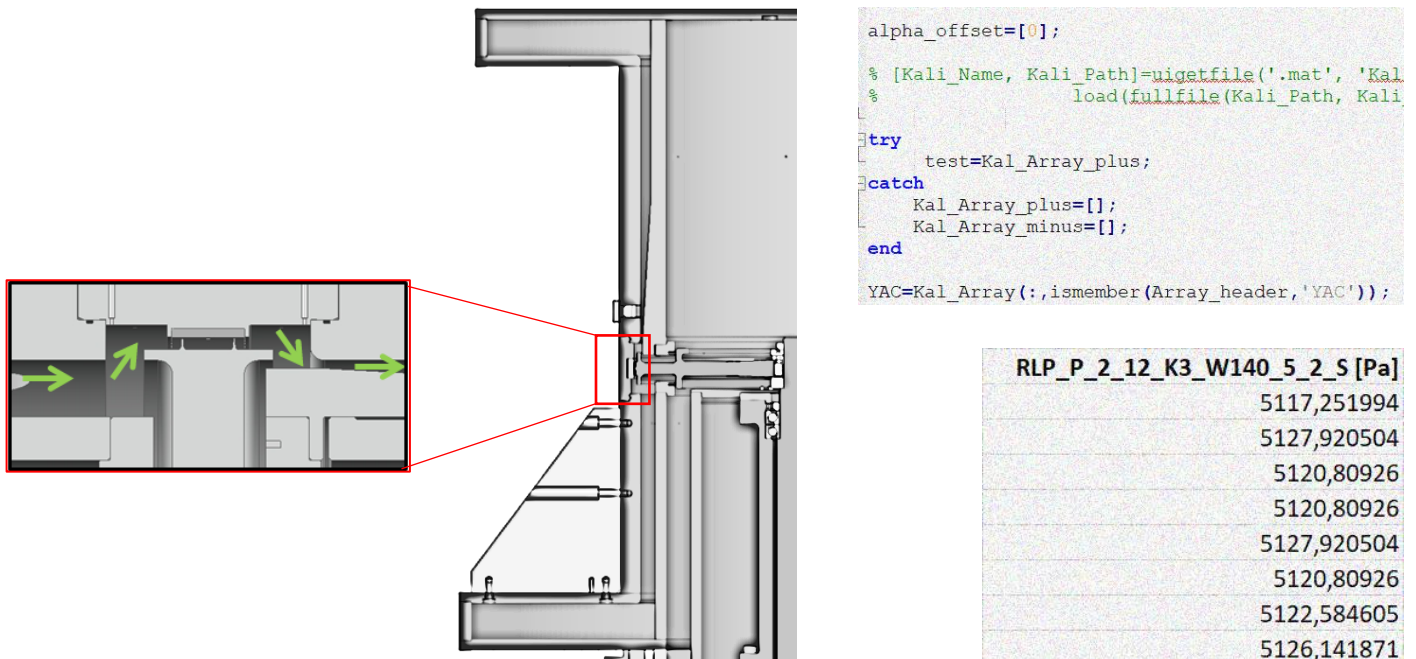
Background

In low pressure turbines of modern aircraft engines, the rotor stages are provided with a shroud for aerodynamic and structural reasons. The shroud creates a cavity between the rotor and the stationary casing. The innovative design of cavities is a key aspect of increasing efficiency and reducing fuel consumption in modern engines.

TFD operates the rotating labyrinth test rig (RLP) to investigate such cavities. The RLP serves to aero engine companies and shapes the future of the shroud cavity design.

A lot of measurement data is created while performing the experiments which needs to be post-processed and evaluated. Post processing becomes time consuming when it is not automated.

A script and user interface are required to process and evaluate the data accurately and easily.

Your Profile

- Have good knowledge of MATLAB or Python
- Structured way of working
- Good command of English

Your tasks

- Familiarisation with the methods
- Creating MATLAB/Python scripts to automatize the post processing of the experimental results

Contact

Are you interested?

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