Anisotropic pac with medcoupling

1 Introduction

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1.1 Description

The cas test for modelling the anisotropic conduction in the GDL of PEMFC

1.2 Parameters TRUST

- Version TRUST :

- Version Trio_U from out: /home/dinhvan/formation_trust/pemfc/pemfc-exec_opt (1.7.6)

1.3 Test cases

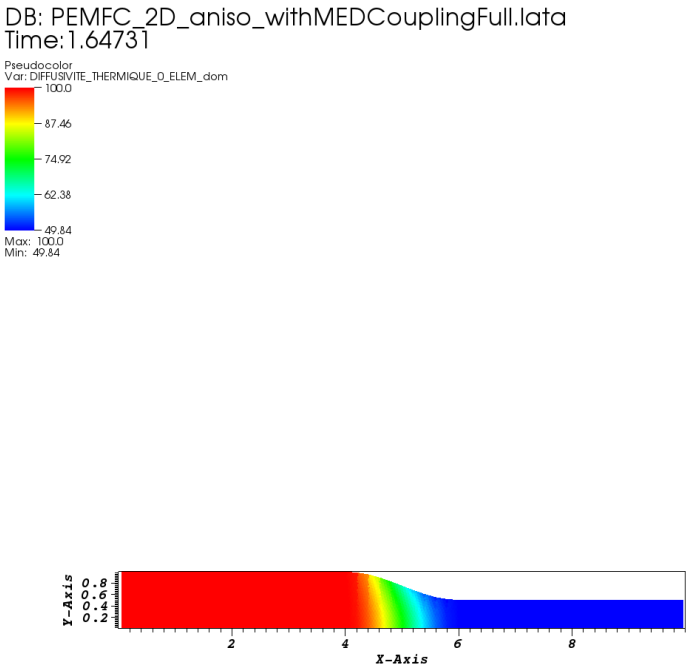
- ./PEMFC_2D_aniso_withMEDCouplingFull.data :

2 Thermal diffusivity

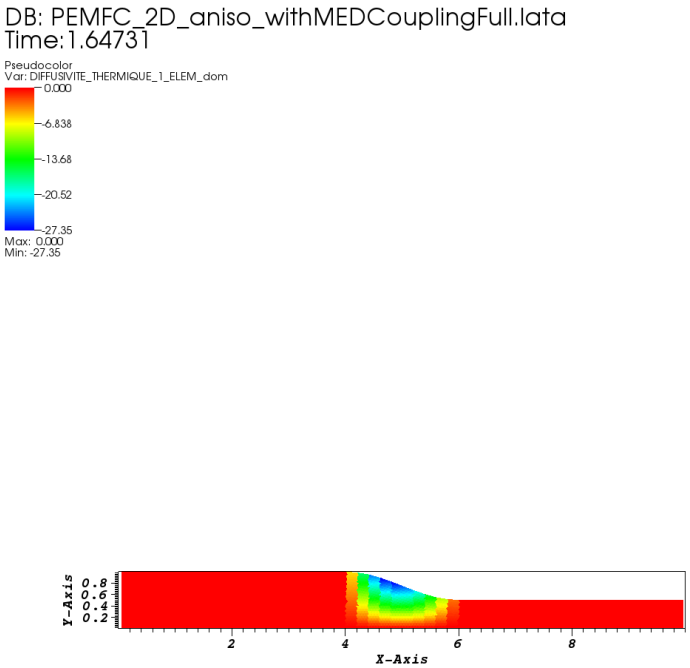
Here is the visualization of all components of the thermal diffusivity located at elements.

the matrix of conductivity (2D) is a 2x2 sysmetric matrix

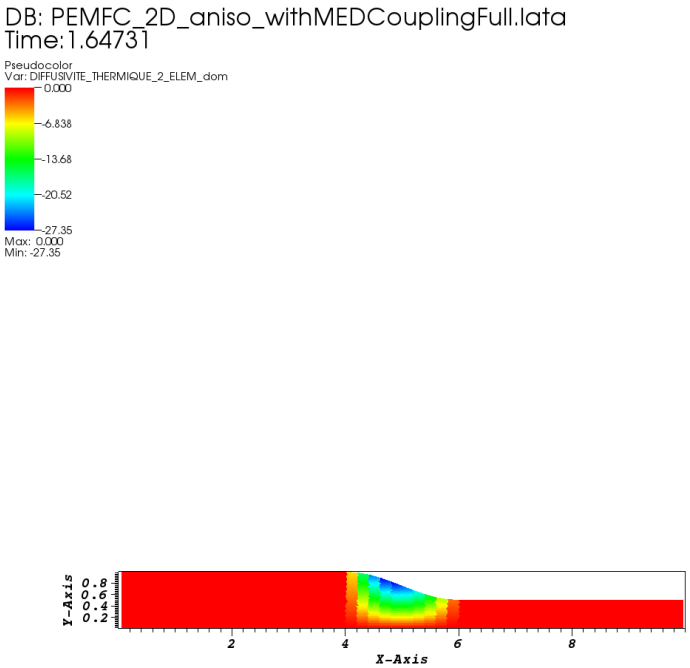
2.1 component 0



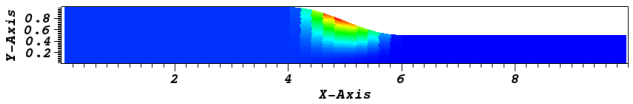
2.2 component 1



2.3 component 2



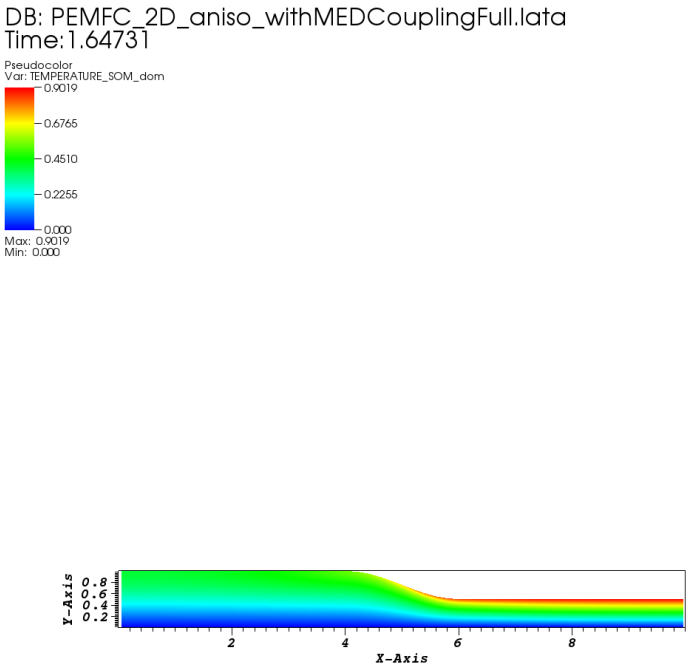
2.4 component 3



3 Temperature

Here is the visualization of the temperature.

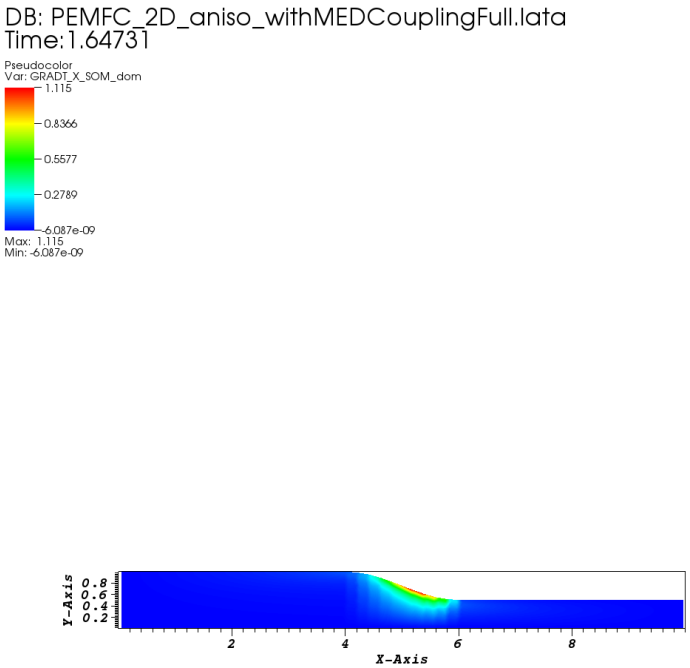
3.1 Temperature field located at vertices



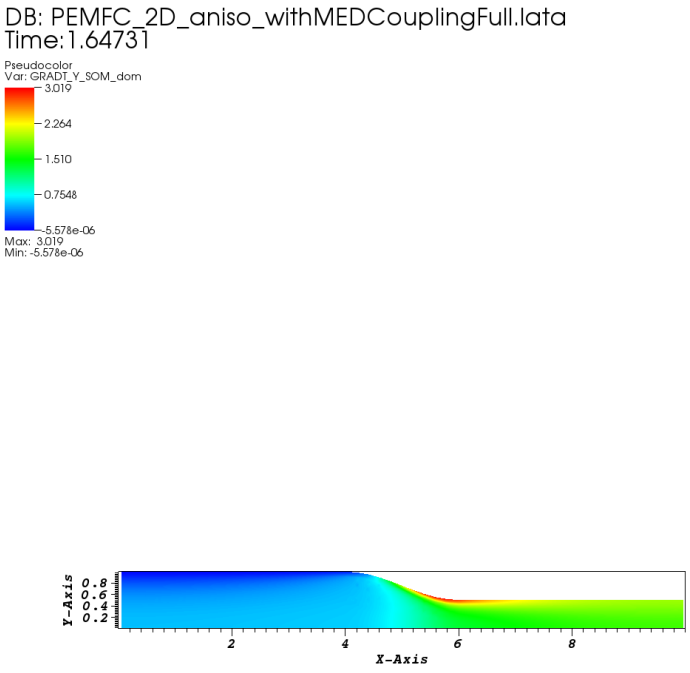
4 Gradient of Temperature

Gradient of Temperature

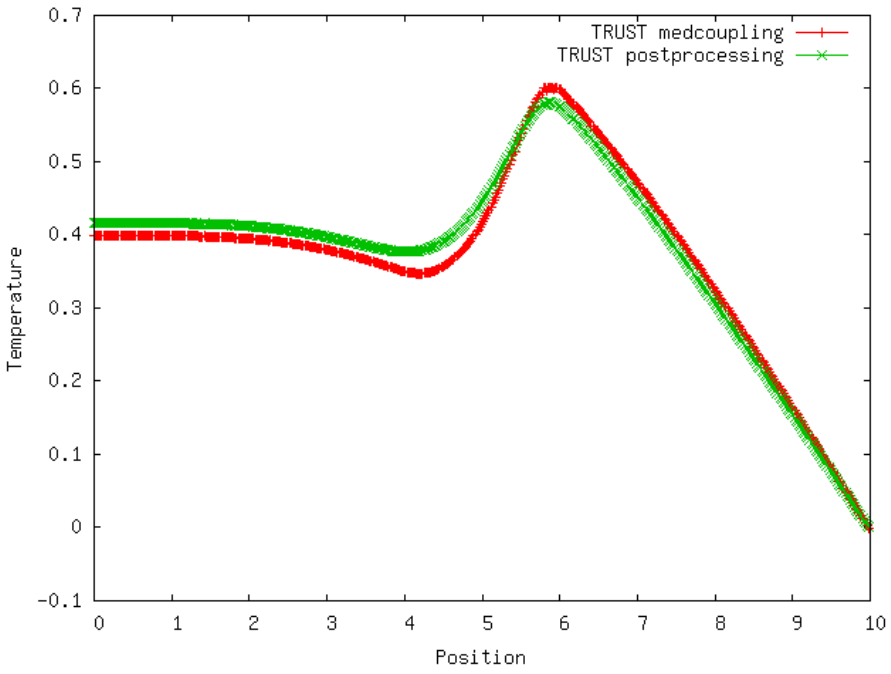
4.1 Flux field located at vertices - composant x



4.2 Flux field located at vertices - composant y



5 Comparison of temperature (TRUST) with and without the correction of conductivity magnitude on the segment [P1,P2] with P1=(0;1) and P2=(10;0)



6 Comparison of flux between (TRUST) with and without the correction of conductivity magnitude on boundary Haut

6.1 Flux au bord Haut