

UNIVERSITY OF LIÈGE  
FACULTY OF APPLIED SCIENCES  
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LIÈGE universit  
Sciences Ap

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MATH0471-MULTIPHYSICS  
INTEGRATED COMPUTATIONAL  
PROJECT

C. GEUZAINÉ  
R. BOMAN

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Intermediate report 1

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DELCOURT ARNAUD  
DESSERS CHRISTOPHE  
HEUCHAMPS ALEXANDRE  
TOMASETTI ROMIN

FEBRUARY 18, 2018

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## 0.1 Questions to ask on February, 20

- Do we have to take into account the frequency-dependency of the electromagnetic properties of the materials? (see [https://em.geosci.xyz/content/physical\\_properties/magnetic\\_permeability/magnetic\\_permeability\\_frequency\\_dependent.html](https://em.geosci.xyz/content/physical_properties/magnetic_permeability/magnetic_permeability_frequency_dependent.html))
- Regarding the already-written code:
  - Comments on the created classes?
  - Is speed affected? Or we don't care?
  - Especially, ask if `Array_3D_Template<Node> nodes` is a good way to start !
- Regarding testing, what are the simplest tests? Could we compare our results with other simulations? Do we have to compare with something that can be hand-solved?

## 0.2 Database for human tissues

<https://www.itis.ethz.ch/virtual-population/tissue-properties/downloads/database-v3-1/>