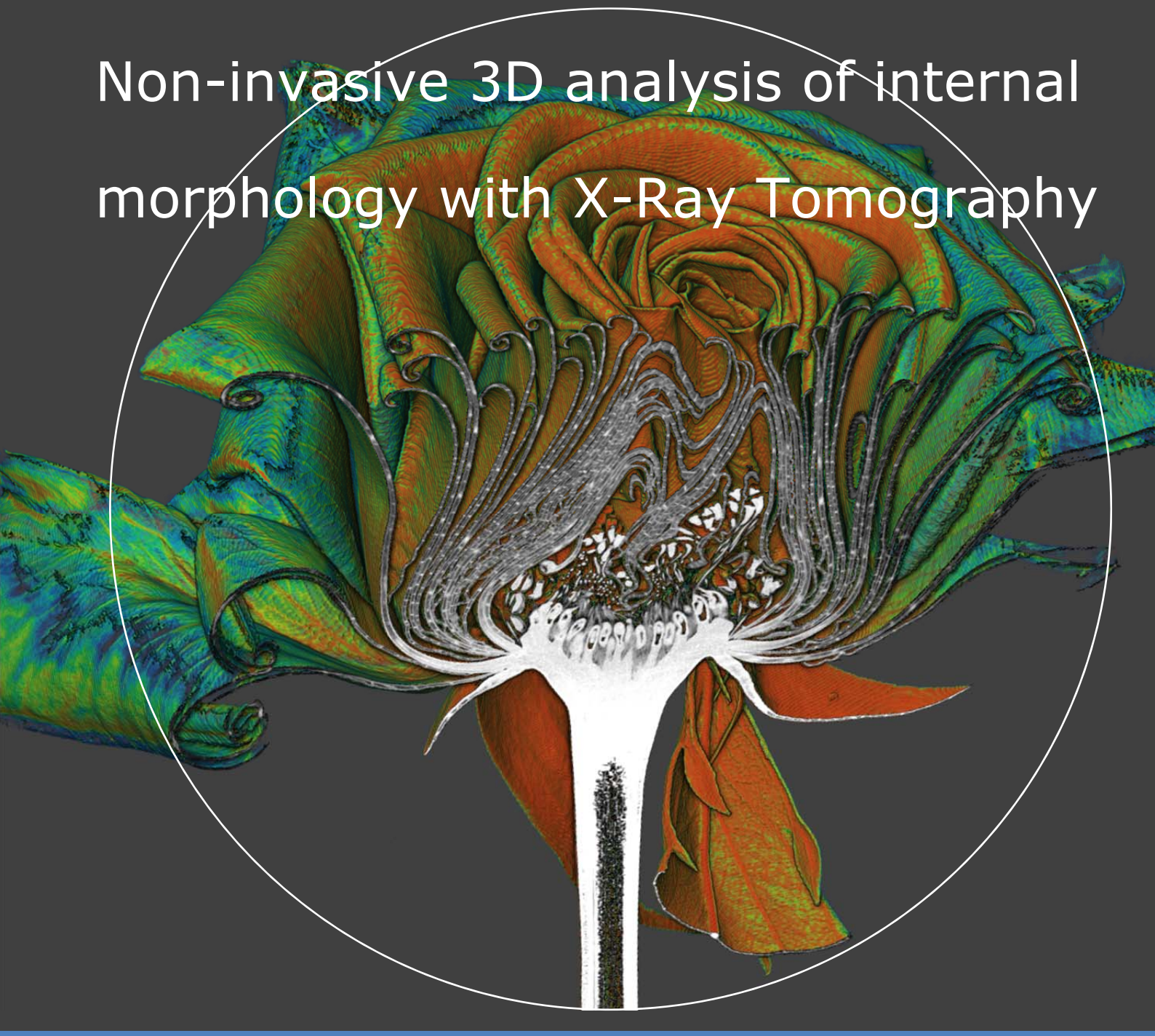
Non-invasive 3D analysis of internal morphology with X-Ray Tomography



See how XRT can add new insights to your research.

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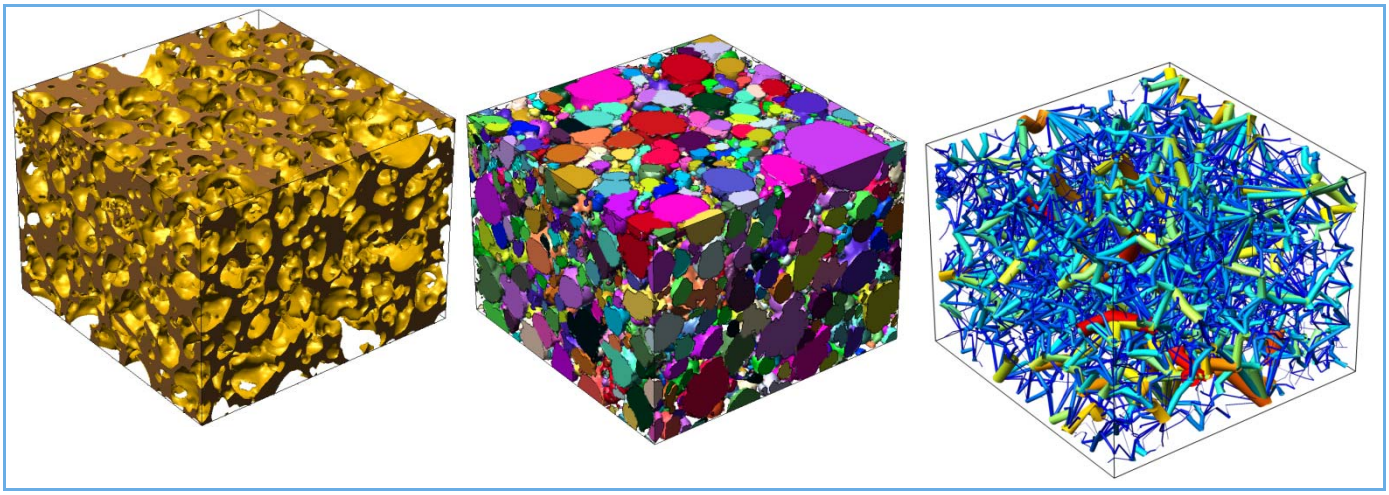


Imagine that you could look inside your product or research object and observe its internal structure up to a detail of about 1 micron without destroying the object. X-ray Computed Tomography (XRT) can do just that!

X-ray tomography

XRT is a technique that non-invasively measures the 3D structure of objects down to a spatial resolution of 1 µm and time resolution of minutes. The equipment is suited for a broad range of applications and delivers essential information to relate internal structure of objects to their physical behaviour.

Application Areas:

- Food and material science such as
  - Solid and semi-solid foods such as foams, emulsions, meat(replacers), cheese, bread, cereals
  - Colloidal particles in foods such as fibres, starch granules, emulsion droplets
  - Fibres, paper, powder
- Geology
  - Rock and soil
- Biomaterials
  - Plants, seeds, fibres, wood, paper, rocks, etc.
  - Root growth in pot plants
  - Insects, fish, birds feathers

Benefits

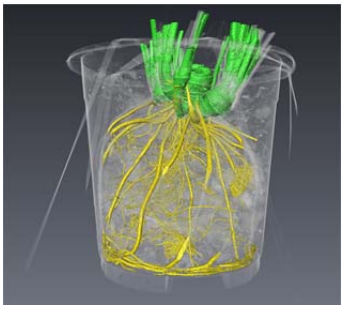
- New insights in the 3D structure of materials at µm resolution without destroying it
- Adequate translation from 3D structure to essential system parameters
- Objective product quality control
- Infrastructure and expertise open for third partners

Technology takeaways

- High precision, fast and non-invasively measurement of 3D structure under controlled atmosphere
- Two X-ray sources allowing for accurate measurements of soft as well as dense materials

Our expertise and facilities

- GE/Phoenix v[tome]x m X-ray microfocus and nanofocus CT scanner
- Fast dedicated computer software and hardware for image processing
- Food science to relate ingredient properties to product quality parameters and to develop design rules allowing industry to manufacture end products with the highest possible quality



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