



Images: Courtesy: Wikipedia

Tomographic Reconstruction

Supervisors: Ajit Rajwade, Sharat Chandran, Imants Svalbe (Monash)

Problems!

- Machine-related
- Process Model-related
- Human-related

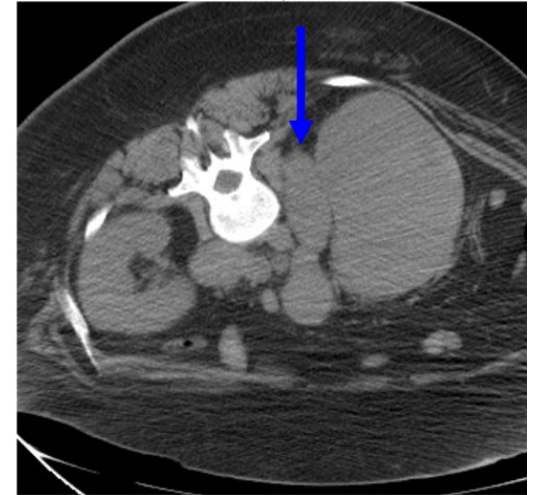
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low dose

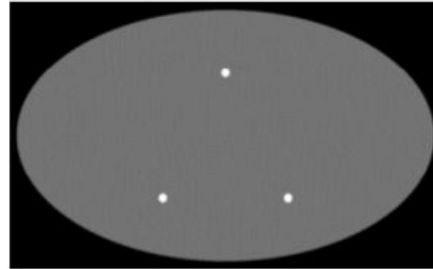


high dose

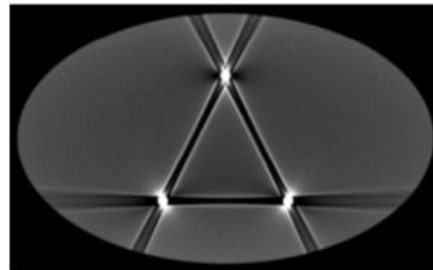


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ideal

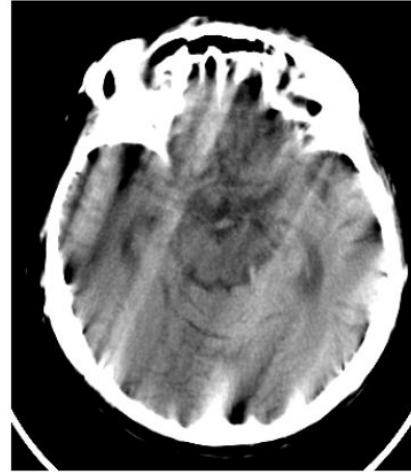


actual

*Image Source: "CT artifacts: Causes and reduction techniques"
-F Edward Boas & Dominik Fleischmann*

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**streaks and blur
due to motion**

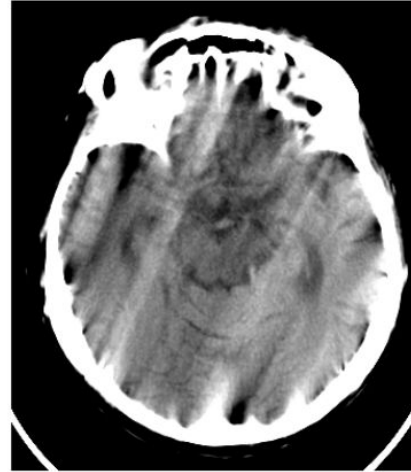
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Thesis focus



**streaks and blur
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Thesis Goal---

- **Develop intelligent algorithms that will compensate for human related errors.**

How?

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- Can I use some implicit redundant information?
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Techniques used:

Compressive sensing, optimization, image and signal processing.