

Scanning the Unseen

By sending low-dose X-rays at an object through a range of angles and measuring the rays' absorption, CAT (Computed Axial Tomography)-scans provide precise images that conventional X-rays can't. Multivariable calculus and a mathematical tool known as the *Radon transform*—invented early in the 20th century—are crucial to the efficient reconstruction of a three-dimensional image from the information gleaned along the one-dimensional lines. That efficient reconstruction allows for better images with less exposure to X-rays—benefiting doctors and patients alike.

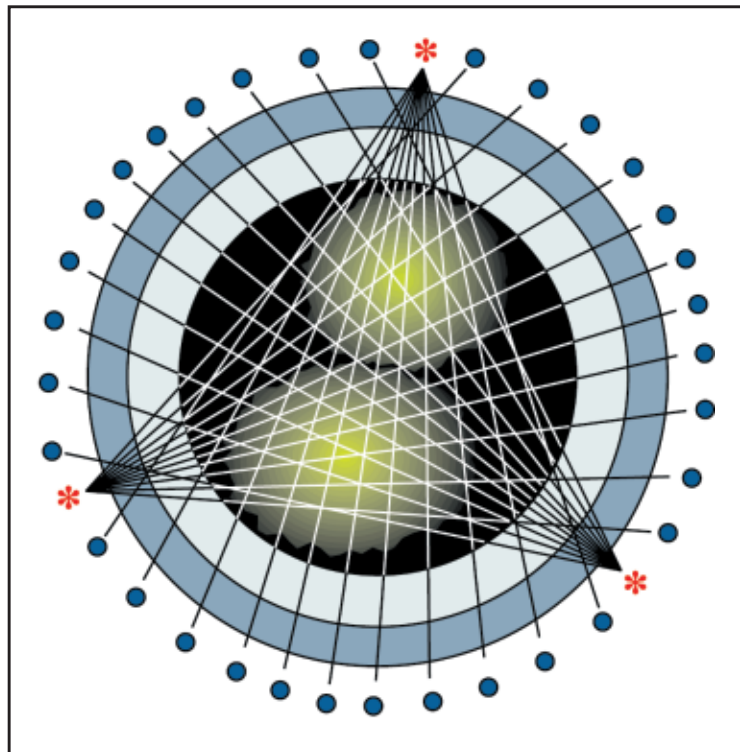


Image courtesy of Quest IruTec.



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