CT Scanner
CAF Central Analytical Facilities
STELLENBOSCH UNIVERSITY

CT NEWS

The Stellenbosch CT scanner facility newsletter

"more than just a scan"

Jan 2018

In This Issue

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- Google maps & reviews: https://goo.gl/maps/F8X5EzjGek32
- Twitter @Stellenbosch_CT https://twitter.com/stellenbosch_ct
- Facebook group: https://www.facebook.com/ctscanfacility/
- Youtube channel for videos: https://www.youtube.com/channel/UCXFx_JBZVAewNE3JqM1grYA
- Twitter @antonctscanner1 https://twitter.com/antonctscanner1
- Linkedin: https://www.linkedin.com/in/drantondulplessis/

Of course also our regular website: www.sun.ac.za/ctscanner
And our group's own research page: http://blogs.sun.ac.za/duplessis/

Welcome

Happy 2018 from the CT facility team! We are excited and ready to go, so you can send us your samples. Please check our newsletter for latest developments. As part of the extended CT facility family, you are always welcome here, please come in for a cup of coffee and discuss your CT work for 2018.

If you wonder what it takes to make a CT scan? Have a look here: https://youtu.be/Yqui4OPVZu0

The Stellenbosch CT facility team is ready for you

What's new in 2018

The new year brings new opportunities for 3D imaging, here a quick outline what to expect from us this year, all will be up and running soon:

- **Make your own quote online**
- **Do your own scanning**
- **New scanners available**

For more information on these new developments, please see: **http://blogs.sun.ac.za/ctscanner/new-developments-for-2018/**

Online bookings & quotes

Drop off service is easier and billed per hour. Send us the part and we do it. Otherwise you can book your session online for microCT, nanoCT or analysis PCs. We book in 4 hr slots. If you are a new user, first create a user number on our system here:
http://www0.sun.ac.za/safmachform/machform/view.php?id=73618

The booking system:
http://www.supersaas.com/schedule/CAF_Booking_systems/CT_Facility

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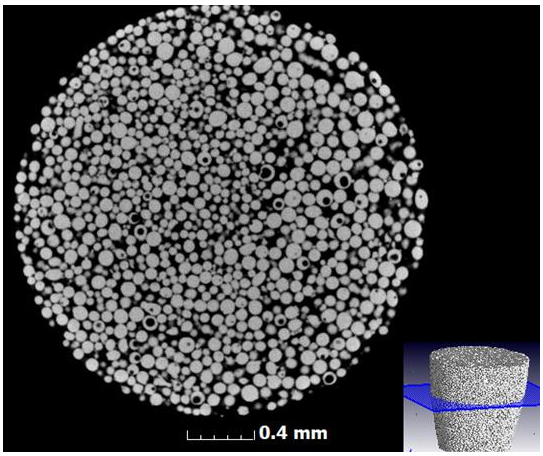
www.sun.ac.za/ctscanner

We are members of IntACT, the International Association for Computed Tomography

http://www.intact-tomo.org/

Tech note series: part 3

In an effort to demonstrate some of the more routine analysis methods using X-ray CT, we continue our series of simplified "tech notes". All can be found online at http://blogs.sun.ac.za/ctscanner/introduction/. This month is metal powder analysis. This type of powder might contain pores, or might be irregular shaped. MicroCT provides real 3D data of the inside and outside of the particles, with statistical size analysis. Read more in the tech note here: http://blogs.sun.ac.za/ctscanner/files/2013/07/CT-tech-note-3.pdf



Porosity analysis of metal powders – black dots are pores

Publication highlight

Prof Igor Yadroitsev and Dr Ina Yadroitsava are regular users of our facility. They work on metal additive manufacturing (3d printed metals). Their most recent work was published recently in Journal of Materials (JOM) – *Qualification of Ti6Al4V ELI Alloy Produced by Laser Powder Bed Fusion for Biomedical Applications.* Read it here: https://link.springer.com/article/10.1007/s11837-017-2655-5

Prof Igor Yadroitsev and Dr Ina Yadroitsava, enjoying a conference and planning research in Additive Manufacturing

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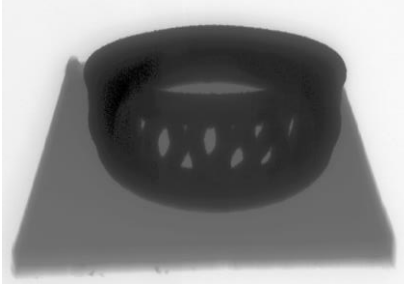
Guess-the-X-ray

To highlight the capabilities of our systems to really look into and through parts, we regularly show some X-ray images. The idea is you can try to guess what it is and why we are analyzing it.



Last month's quiz – it's a 3d printed platinum ring, still on its baseplate. This was the world's first pure platinum 3D print, see more about it here: https://3dprint.com/194222/south-africa-platinum-3d-print/

This month's X-ray quiz:

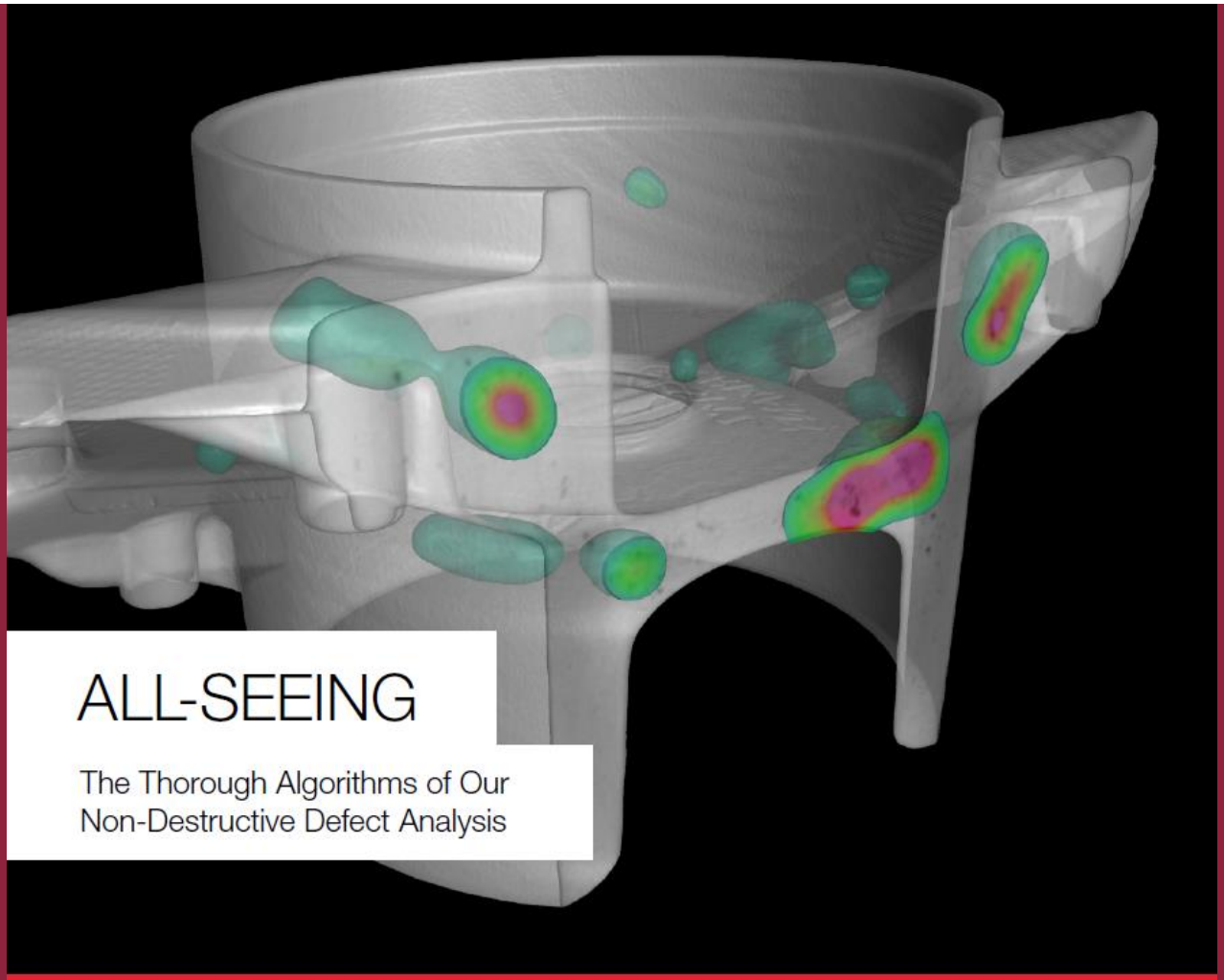
If you know what this is, pop us an email and you could win a free 3D rendering of your data or a cup of coffee (or maybe both). First correct answer wins

Acknowledgements

The CT scanner equipment acquisitions were made possible with grants from the National Research Foundation and Stellenbosch University. The Department of Science and Technology Internship program is also acknowledged for its support of this facility. Narich is acknowledged for its support in the form of the Ocean Optics Spectroscopy Centre of Excellence. We encourage and welcome any form of sponsorship or support in order to keep delivering the best quality.

Please cite our facility when reporting data generated here:

http://www.sciencedirect.com/science/article/pii/S0168583X16303433



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