

**PROGRAM IMGRAD-4: 4 & 5 August 2021**

04-Aug-21		DAY 1	
No	TIME	TITLE	SPEAKER
1	08:30 - 09:00	<b>Sponsors Advert (Volume Graphics &amp; Nikon)</b>	
<b>Session-1: Instruments and software, Chair: Dr Lunga Bam (Necsa)</b>			
2	09:00 - 09:20	Welcome & Opening	Dr Jan Rijn Zeevaart (Necsa: Acting DE for R&TD)
		Order arrangements	Nshimirimana Robert(Necsa)
3	09:20 - 10:20	The computer tomographic scanner: How solving a mathematical algorithm won a nobel prize in medicine (Key note speaker)	Prof Vaughan Christopher L (Caperay /University of Cape Town / Stellenbosch University)
4	10:20 - 11:00	Analysis and visualization of scientific tomography data with VGSTUDIO MAX (Sponsor: Volume Graphics)	Bohn H. (Volume Graphics GmbH)
	11:00 - 11:10	<b>SHORT BREAK (SPONSOR advert)</b>	
5	11:10 - 11:40	An overview of the Stellenbosch CT facility – latest capabilities, applications and advances	Prof Anton du Plessis (Stellenbosch University)
6	11:40 - 12:10	3D imaging at the Unisa-Mintek X-ray microscopy facility	Dr Chetty Deshenthree (Mintek)
	12:10 - 12:40	<b>BREAK: LUNCH (SPONSOR advert)</b>	
7	12:40 - 13:00	Status of imaging with radiation at Necsa	Nshimirimana Robert (NECSA)
8	13:00 - 13:30	The introduction of a new beamline (BM18) at the European Synchrotron and Radiation Facility and its implications for material sciences, natural and cultural heritage, and biomedical research fields	Dollman Kathleen (European Synchrotron and Radiation Facility)
9	13:30 - 14:00	Radiation shielding design for a neutron radiography facility at a research reactor	Van Rooyen Johann (North-West University)
<b>Session-2: Application, Chair: Prof Anton du Plessis (SUN)</b>			
10	14:00 - 14:20	Non-destructive microtomography of Early Triassic vertebrate coprolites from South Africa.	Montgomery Chandelé (University of the Witwatersrand)
11	14:20 - 14:40	The inner ear lateral semicircular canal and head posture in ungulate mammals	Dr Benoit Julien (Evolutionary Studies Institute, University of the Witwatersrand)
12	14:40 - 15:00	Comparison of two scanning modalities for ancestry estimation using the mid-facial skeleton.	Bothma Pearl Nomshado (University of Pretoria)
13	15:00 - 15:20	An investigation into the complementary capabilities of the X-ray computed tomography and hyperspectral imaging of drill core in geometallurgy	Mashaba Dineo Lucia (Centre for Minerals Research, Department of Chemical Engineering)
	15:20 - 15:25	<b>Closing day 1</b>	

05-Aug-21		DAY 2	
	TIME	ACTION	SPEAKER
14	08:30 - 09:00	<b>Sponsors Advert (Volume Graphics &amp; Nikon)</b>	
<b>Session-3: Methods and application Chair: Mr Nshimirimana (Necsa)</b>			
15	09:00 - 09:10	Guest Speaker	Dr Frikkie de Beer
16	09:10 - 10:10	Applications and scattering effects in Neutron Imaging	Dr Burkhard Schillinger (FRM II)
17	10:10 - 10:40	Nikon Metrology's new 225 kV microfocus X-ray CT (Sponsor: Nikon)	Christopher Price (Nikon Metrology)
18	10:40 - 11:00	Noise approximation from Cone-Beam Computed Tomography (CBCT) scans using a new computer-assisted method based on automatic landmarking.	Dr Ridel Alison (Department of Anatomy, Faculty of Health Sciences, University of Pretoria, Pretoria, South Africa)
	11:00 - 11:10	<b>SHORT BREAK (SPONSOR advert)</b>	
19	11:10 - 11:30	Filling the Olson's Gap? A re-appraisal of Raranimus dashankouensis (Synapsida, Therapsida) using CT scanning technologies	Duhamel Aliénor (Evolutionary Studies Institute, University of the Witwatersrand)
20	11:30 - 11:50	Computed tomography reconstruction for the reduction of the effects of metallic inclusions	Chinamatira Gideon (University of the Witwatersrand)
21	11:50 - 12:10	65 years of using X-rays to study tooth replacement in Therapsida	Dr Norton Luke (Evolutionary Studies Institute, University of the Witwatersrand)
22	12:10 - 12:30	Did Australopithecines and Homo taxas suffered from alveolar bone loss, which may have affected masticatory functions?	Prof. RIPAMONTI Ugo (Bone Research Laboratory, School of Clinical Medicine – internal Medicine, faculty of Health Sciences, University of the Witwatersrand)
	12:30 - 13:00	<b>BREAK: LUNCH (SPONSOR advert)</b>	
<b>Session-4: Application, Chair: Mr Jakobus Hoffman (Necsa)</b>			
23	13:00 - 13:20	Microfossil evaluation using X-ray computed tomography for petroleum exploration	Tshibalanganda Muofhe (CT scanner facility, Stellenbosch University)
24	13:20 - 13:40	Characterizing the unusual 3D morphology of calcite minerals found in coal: a case study	Wells Carlyn (Stellenbosch University)
25	13:40 - 14:00	Positron Emission Imaging	Daniels Graham (Necsa)
26	14:00 - 14:20	Scales, lips or venom? A survey of the trigeminal canals in Tyrannosaurus rex using X-ray computed tomography	Bouabdellah Florian (Université de Poitiers)
27	14:20 - 14:40	Bakeng se Afrika – a digital skeletal repository, for Africa, by Africa	Clarisa van der Merwe (University of Pretoria)
28	14:40 - 15:00	Online vision assistant optimization of neutron Radiography Detector System Optical Parameters	Moraba Evens (Necsa)
29	15:00 - 15:30	<b>CONCLUSION &amp; PROSPECT OF THE NEXT CONFERENCE</b>	