

2nd call for papers, participants and sponsors

Deadline for abstracts: 31 May

Biomimetic engineering for additive manufacturing @RAPDASA2019 !

This specialist track at the annual RAPDASA conference is all about realizing the full potential of additive manufacturing – making parts that are both beautiful and functional using biomimetic engineering. We invite all scientists and engineers with an interest in the latest advances in biomimicry for additive manufacturing, both from industry and academia, to join us in this special track in the conference. Topics of relevance includes:

- Biomimicry & learning from nature on various levels
- Simulation, design and production of complex parts using any AM method
- Practical aspects of incorporating complexity into AM
- Organic and freeform design
- Simulation driven design (topology optimization)
- Lattices & cellular structures
- Build simulation & residual stress for complex geometries
- X-ray computed tomography & characterization methods
- Microstructure, porosity and surface roughness implications
- Structural mechanics simulation (finite element methods)
- And more

Invited international guests and local experts will present lectures on the above topics, while researchers and students will be given the opportunity to present their work related to these topics. Industry sessions will contribute to this specialist track, highlighting the capabilities of present-day hardware and software tools supporting biomimetic engineering for AM. A journal special issue is planned for technical papers in this track, so please mark your submission as “Biomimetic engineering”. For any questions please contact the track chair Prof Anton du Plessis – anton2@sun.ac.za.

Get involved and support this exciting and fresh initiative, by submitting your industry or technical paper, join us as participant, or sponsor the conference. We look forward to discussing the way forward for optimized, complex and biomimetic design for additive manufacturing, and everything that makes this possible!