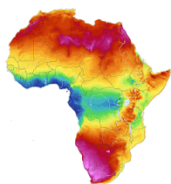


Agenda



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2nd Annual STERG SolarPACES Symposium 17 July 2014 Stellenbosch, South Africa



SOLAR THERMAL ENERGY
RESEARCH GROUP

| Time | No. | Speaker | Title | Affiliation |
|----------------------|-----|------------------------|---|-------------|
| Session 1 | | | | |
| 08:00 - 08:30 | | | Registration and coffee | |
| 08:30 - 08:45 | | Prof Wikus van Niekerk | Symposium opening & speaker introduction | SU |
| 08:45 - 08:55 | | Vikesh Rajpaul | Role of SASTELA in the CSP community | SASTELA |
| 08:55 - 09:15 | | Vikesh Rajpaul | Keynote 1/2 | ESKOM |
| 09:15 - 09:30 | | | Questions/discussion | |
| 09:30 - 09:45 | 1 | AJ Meyer | DNI data and map projects in Southern and Eastern Africa | GeoSUN |
| 09:45 - 10:00 | 2 | Preyen A Perumall | Characterizing the Solar Resource with a Temporal Direct Normal Irradiance Topograph | UKZN |
| 10:00 - 10:15 | 3 | Miguel Frasquet | Shadowing and blocking effect optimization for a variable geometry heliostat field | CTAER |
| 10:15 - 10:30 | 4 | Adhikar Hariram | The use of CFD for heliostat wind load analysis | SU |
| 10:30 - 10:45 | | | Tea break | |
| Session 2 | | | | |
| 10:45 - 11:00 | 5 | James N Larmuth | The effects of heliostat component cost on heliostat size | SU |
| 11:00 - 11:15 | 6 | Sebastian-James Bode | Further Development of SUNRAY – a Ray Tracer for Solar Thermal Systems | SU |
| 11:15 - 11:30 | 7 | Willem Landman | Limitations of assuming a circular Gaussian flux density distribution for a heliostat image | SU |
| 11:30 - 11:45 | 8 | Annemarie Grobler | An optimized aiming strategy using approximate flux mapping | SU |
| 11:45 - 12:00 | 9 | Lilongeni Kayofa | Feasibility study and business plan for manufacturing a 3 kW-electrical solar stirling engine and dish, for a stand-alone power supply unit | SU |
| 12:00 - 12:15 | 10 | Jason Humm | The development of an Organic Rankine Cycle Heat Engine using a rock thermal battery as the heat source | NMMU |



SOLAR THERMAL ENERGY RESEARCH GROUP

12:15 - 13:30

**Extended lunch break with solar lab tour
Opening ceremony of SASOL Helio40**

| Session 3 | | | | |
|---------------|----|----------------------|--|---------------|
| 13:30 - 13:50 | | Dr. Michael Geyer | Keynote 2/2 | Abengoa Solar |
| 13:50 - 14:00 | | | Questions/discussion | |
| 14:00 - 14:15 | 11 | Francois G Louw | Numerical simulation of the flow field in the vicinity of an axial flow fan | SU |
| 14:15 - 14:30 | 12 | Christina Auret | Effect of remuneration structure on CSP plant configuration and position | SU |
| 14:30 - 14:45 | 13 | Matti Lubkoll | Initial analysis on the novel Spiky Central Receiver Air Pre-heater (SCRAP) pressurized air receiver | SU |
| 14:45 - 15:00 | 14 | Dr. Josefine M Wilms | Phase change due to temperature increase in horizontally orientated tubes | SU |

15:00 - 15:15

Tea break

| Session 4 | | | | |
|---------------|----|-------------------|---|----|
| 15:15 - 15:30 | 15 | Lukas Heller | Liquid glass as the heat transfer fluid and storage medium of a central receiver CSP plant | SU |
| 15:30 - 15:45 | 16 | Dr. Kenneth Allen | High temperature rock beds for CSP: design considerations | SU |
| 15:45 - 16:00 | 17 | Daniël Malan | Solar thermal storage in power generation using phase change material with heat pipes and fins to enhance heat transfer | SU |
| 16:00 - 16:15 | 18 | Johann Terblanche | Prototype design of a HYDROSOL (HYDro, ROck, SOLar) air heating and cooling system | SU |
| 16:15 - 16:30 | | Prof Frank Dinter | closure | SU |

16:30 - 17:30

Cocktail reception

18:30 - 21:45

Symposium dinner

