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## 1<sup>st</sup> Annual STERG symposium

- Date:** Thursday 18 July, 2013  
**Venue:** Lecture hall K303, 3<sup>rd</sup> floor, Knowledge Centre, Stellenbosch University  
**Attendance:** STERG members, Stellenbosch University, funders, invited guests and the public by RSVP  
**Cost:** Free with RSVP  
**Registration:** Contact Gillian at GILLIANC@sun.ac.za or 021 808 4016

### Event sponsors

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### ECSA CPD registered



### Draft program (subject to change)

Chair: Paul Gauché

### 08h00 – 08h20 – Registration, welcoming and breakfast

#### Session 1: Opening and Invited Speakers-100min

08h20 – 08h25 –Opening, logistics and rules – Paul Gauché

08h25 – 08h35 – Welcoming/Introduction: CRSES, STERG, Profs D Kröger, Prof F Dinter – Prof Wikus van Niekerk

08h35 – 09h00 – Keynote: An introduction to the SUNSPOT cycle – Prof Detlev Kröger

09h00 – 09h15 – STERG overview and progress – Paul Gauché

### Primary Solar Thermal Energy Research Group Funders



09h15 – 09h30 – Existing knowledge, the future, strategic plans for the Centre – Frank Dinter

09h30 – 09h45 – Solar thermal at UKZN - Jean Pitot

09h45 – 10h00 – WWF view on CSP and other alternatives – Saliem Fakir

**10H00 – 10h15 – tea/coffee break**

**Session 2: SUNSPOT - 105min**

10h15 – 10h30 – SUNSPOT modelling – Jean Pitot

10h30 – 10h45 – Dual-pressure air receiver cycle – Lukas Heller

10h45 – 11h00 – Hybrid Pressurised Air Receiver – Holger Kretzschmar

11h00 – 11h15 – HPAR CFD and optimization (&Solar thermal at UP) – Prof Ken Craig - UP

11h15 – 11h30 – Spikey Central Receiver Air Pre-heater – Matti Lubkoll

11h30 – 11h45 – Packed bed thermal storage – Kenny Allen

11h45 – 12h00 - A hybrid dephlegmator for incorporation into an air-cooled steam condenser –  
Michael Owen

**12h00 – 13h30 – Sponsors Lunch and Solar Labs tour (weather permitting)**

**Session 3: Systems and heliostats -90min**

13h30 – 13h45 – Modelling the REIPP Rounds 1& 2 Project: Implications – Sebastian Giglmayr

13h45 – 14h00 – Scenarios for a South African peaking CSP system – Cebo Silinga

14h00 – 14h15 – Solar assisted power generation – Warrick Pierce (by Paul Gauché)

14h15 – 14h30 – Heliostat field optimization – Shanley Lutchman

14h30 – 14h45 – Influence of Canting Mechanism and facet Profile on Heliostat Field Performance –  
Willem Landman

14h45 – 15h00 – Model based correction of heliostat tracking errors – Karel Malan

**15h00 -15h15 - Tea break**

**Session 4: General and Closing - 45min**

15h15 – 15h30 – Simulation and testing of a latent heat thermal energy storage unit with metallic phase  
change materials – Johan Kotze

15h30 – 15h45 – A novel approach to reduce ray tracing simulation times by predicting number of rays –  
Sebastian Bode

15h45 – 16h00 – Closing discussion for feedback and ideas or buffer session

**16h00 – 17h00 – Cocktails**

**17h00+ - Provisional: Dinner at a Stellenbosch venue for invited guests and STERG members**