Invited Lectures

Prof. Dr.-Ing. Dr. h.c. mult. J. Schlaich, SBP Berlin:
Concept and motivation of solar updraft power technology

Prof. Dr. M. Fischedick, Dr. P. Viebahn, S. Samadi, Wuppertal Institut:
Solar updraft technology and global energy scenarios

Thermodynamics and Machinery

Prof. Dr. D.G. Kröger, U. Stellenbosch, Dr. J. Pretorius, ESCOM; Cape Town:
Basic theory and numerical simulation of solar updraft power plants

Dr. T. P. Fluri, Prof. Dr. T.W. von Backström, U. Stellenbosch:
Solar chimney turbine layout and design considerations

Dr.-Ing. H. Pastohr, Astrium, München:
Thermo-dynamical model of solar updraft power plants

Prof. Dr. Ch. D. Pagageorgiou, NTU Athens:
Solar chimney technology without solar collectors

Dr. R. O. Manyala, Maseno University, Kenya:
The effect of collector temperatures on power output of solar updraft plant

Prof. Dr. S. Larbi, A. Bouhdjar, T. Chergui, National Polytec, Algier:
Thermo-fluid aspect analysis in solar chimney power plants

Prof. Dr.-Ing. M. A. dos Santos Bernardes, CEFET/MG, Belo Horizonte, Brasil:
Thermal semicondutors as a power control strategy for SCPTs

M. Kuhn, Prof. Dr. T. W. von Backström, U. Stellenbosch:
The influence of tip clearance on the performance of solar chimney turbines

Wind exposure

Prof. Dr.-Ing. R. Höffer, Dipl.phys. V. Görnandt, RUB, Prof. Dr.-Ing. H.-J. Niemann, Dr.-Ing. N. Hölscher, N&P:
Wind loading patterns for the collector glass roof

Prof. Dr.-Ing. H.-J. Niemann, Dr.-Ing. N. Hölscher, Dipl.-Ing. W. Hubert, N&P:
Static, quasi.static and resonant wind effects on GIGA –Towers

Prof. Dr.-Ir. H. van Koten, TU Delft, Dipl.-Ing. J. Sahlmen, RUB, Dipl.-Ing. W. Hubert, N&P:
Vortex excitation at very high Reynolds numbers

Prof. Dr. X. Zhou, F. Wang, Huazhong, U. Wuhan:
Pressure distribution on solar thermal power plant chimneys in thunderstorms

Alternative energy concepts

Dipl.-Ing. F. Henseler, Corporate Engineering, Essen:
Is nuclear power a bridging technology for Europe?

Dr. Gerd Dibowski, DLR, Köln:
How cost-effective are solar-thermal power plants?

Dr.-Ing. H. Gladen, Dipl.-Ing. L. Schnatbaum-Laumann, SM AG, Erlangen:
The parabola trough power plants Andasol

Prof. Dr. P. Moncarz, Exponent Corporation, Menlo Park, USA:
Geo-thermical electricity generation using the Hot Dry Rock concept

Green Tower

Prof. Dr. A. Thomashausen, Pretoria:
GreenTower in world politics

M. Hummel, GreenTower Ltd., München:
Why Solar Updraft Power presently competes with classical power technologies

W. Ademes, Entwicklungs-Consult, Mülheim:
GreenTower with energy storage – Optimum base and peak load power station

W.-W. Stinnes, GreenTower (GT) Ltd., Pretoria:
Humus as backbone of GT revenues – Green revolution and CO_2-sequestration

Equipment, glass collector

Dr.rer.nat. V. Wittwer, ISE; Dr.rer.nat. L. Herlitze, Interpane:
High-transparent glass panes with multi-functional coatings

Prof. Dr.-Ing. R. Höffer, Dipl.-Ing. C. Wevers, RUB:
Investigations of transport and deposition of dust on the collector surface

Dr.-Ing. J. Kuck, Dr.-Ing. C. Ziller, F&W, Aachen, Dipl.-Ing. L. Schnatbaum-Laumann, Dr.-Ing. H. Gladen, SM AG, Erlangen:
Methodical approach to design the solar collector of a solar chimney power plant

Financial aspects

Dr.-Ing. R. Bergermann, SBP, Stuttgart:
Realization and costs of solar updraft power plants

Dr. D. Bonnelle, ENS, Lyon:
An economically realistic growth path towards kilometric chimneys

O. Petersen, OP Software, Kreuzlingen:
Step-wise construction and financing of SCPPs with light-weight steel towers

Prof. Dr. W. Breuer, RWTH Aachen
Solar Chimney Power Technology - An Economist's Point of View

Optimization and durability

Dr. Hermann Bottenbruch:
Complete solar energy supply system for Africa and Europe with solar updraft power plants during the present century

Dr. H. Bottenbruch, Prof. Dr. W. B. Krätzig, K&P:
Optimum design of solar chimneys

Dr. H. Bottenbruch, Prof. Dr.-Ing. P. Noakowski, Exponent, Düsseldorf:
Optimum design of the hot air injection into the solar chimney

Dr. R. de Richter, Tour Solaire, Montpellier:
Can airflow and radiation under the collector glass contribute to SUPPs' profitability?

Dr.-Ing. J. Strauss, Heitkamp, Herne, Alexander Kreiner, Gleitbau Salzburg:
Optimized erection technology of GIGA towers

Prof. Dr. J. Schneider, TU Darmstadt:
Optimization of the Structural Capacity and Thermal Behaviour of a SCPP Glass Roof

Structural aspects

Prof. Dr h.c. C. Borri, F. Lupi, E. Marino, U. Florence:
Optimum shell design of solar updraft towers

Prof. Dr.-Ing. W.B. Krätzig, K&P, Prof. Dr. G. I. Schuëller, U. Innsbruck:
Safety, reliability and durability concepts for solar updraft power components

Prof. Dr.-Ing. R. Harte, U. Wuppertal; Dipl.-Ing. M. Graffmann, Dr.-Ing. R. Wörmann, K&P:
Progress in the structural design of solar chimneys

Prof. Dr.-Ing. R. Harte, U. Wuppertal, K. Stopp, Dr.-Ing. M. Andres, K&P:
Soil-structure-interaction of large concrete shells

Prof. Dr.-Ing. L. Lohaus, U. Hannover:
Concrete concepts for solar chimneys

Prof. Dr.-Ing. P. Mark, Dipl.-Ing. A. Ahrens, RUB, Dr.-Ing. D. Lehnen, Dr.-Ing. T. Pfister, Zerna Engineers:
Life-cycle-management and design of large shell structures

Dr.-Ing. Ch. Lang, Dr.-Ing. F. Altmeier, Dipl.-Ing. J. Weigl, LAW Engineers:
Earthquake behaviour of solar updraft power plant chimneys

Prof. Dr.-Ing. M. Helmus, N. Warkus, U. Wuppertal, M. Lorek, BICON, Windhoek:
Solar chimneys in Southern Africa –Materials and methods