

# ***5th Modulator-Klystron Workshop for Future Linear Colliders***

## ***MDK-2001***

Workshop registration is on Wednesday 25 April from 18:00 to 19:00 where a welcome drink will be offered at 19:00 ("Pas Perdus", bldg. 503 1st floor), There will be another registration session for latecomers on Thursday 26 April, from 07:00 to 08:00 (also in bldg. 503). An Open Poster Session for all attendees and companies will run continuously throughout the workshop

### ***Workshop timetable***



#### ***Thursday 26 April***

- 08:00-08:10 **Opening of workshop by the Workshop Chairman P. Pearce**
- 08:10-08:30 **Welcome speech by K. Hubner (the Director of CERN Accelerators)**
- Session 1-1 RF Systems & Components - Chairman : H. Braun (CERN)**
- 08.30-08:50 Choroba S. DESY The TESLA RF System
- 08:50-09:10 Corsini R. CERN CTF3 - A demonstration of the CLIC RF Power Source
- 09:10-09:30 Syratchev I. CERN RF Pulse Compressors systems for CTF3
- 09:30-09:50 Pearce P. CERN Klystron-Modulators for the 3 TeV CLIC Scheme - An Overview
- 09:50-10:00 **Chairman's review/discussion and questions**
- 10:00-10:20 ***Coffee/tea break+ exhibits***
- Session 1-2 Klystron Technology - Chairman G. Caryotakis (SLAC)**
- 10:20-10:40 G. Caryotakis SLAC A paper design for a Sheet-Beam Klystron and its Modulator
- 10:40-11:00 Beunas A. THALES A High Power Long Pulse High Efficiency Multi Beam Klystron
- 11:00-11:20 Eisen E. CPI Pulse Klystrons for Next Generation Neutron Sources
- 11:20-11:40 Phillips G TMD A 500 kW L-Band Klystron with Broad Bandwidth for Sub-harmonic Bunching in The CLIC Test Facility
- 11:40-12:10 **Chairman's review/discussion and questions**
- 12:10-13:30 ***Lunch Break***
- Session 1-3 Switching Technology - chairman E. Vossenberg (CERN)**
- 13:30-13:50 Gaudreau M Diversified Technologies A Solid State Opening Switch for Crowbar Replacement Technologies
- 13:50-14:10 Sheldrake R. Marconi A Thyatron for the NLC Baseline Modulator.
- 14:10-14:30 Glidden C. APP Inc. High Voltage, High Current, High di/dt Solid State Switch
- 14:30-14:50 Welleman A. ABB Semiconductor Switches replace Thyatrons & Ignitrons

- 14:50-15:20 **Chairman's review/discussion and questions**
- 15:20-15:50 **Coffee/tea break+ exhibits**
- Session 1-4 High Voltage and Energy Storage** - chairman H.U. Boksberger (PSI)
- 15:50-16:10 Eckoldt H. DESY Power Supplies for TESLA Modulators
- 16:10-16:30 Heidbrook N. DESY Digital Regulation for TESLA Modulator Power Supplies
- 16:30-16:50 Woodburn D. D. Woodburn & Co Ltd. Design requirements for the various types of Capacitor used in Modulators
- 16:50-17:10 Reass W.A. LANL First Results of the Los Alamos Polyphase Boost Converter-Modulator
- 17:10-17:40 **Chairman's review/discussion and questions**
- 19:15 **Bus leaves for Restaurant**



### **Friday 27 April**

- 08:00-08:10 **Start up of Day 2 by the Workshop Chairman**
- Session 2-1 Measurement, Protection and Controls** - chairman B. Frammery (CERN)
- 08:10-08:30 Kahl J. DESY A new interlock system for the TESLA RF-system
- 08:30-08:50 Prieto P. Fermilab Muon Collider Test Facility New PFN, Interlocks and Controls
- 08:50-09:10 Gold S. SLAC Klystron Gun Arcing and Modulator Protection
- 09:10-09:30 Bartholomé B. CERN Development of the new CTF3 Klystron-Modulator Controls Interface System
- 09:30-10:00 **Chairman's review/discussion and questions**
- 10:00-10:20 **Coffee/tea break+ exhibits**
- Session 2-2 Klystron-Modulator Design-1** chairman R. Koontz (SLAC)
- 10:20-10:40 Koontz R. SLAC The progress of SBIR Supported R&D of Solid State pulse modulators
- 10:40-11:00 Gaudreau M. Diversified Technologies Solid State Pulsed Power Systems for the Next Linear Collider
- 11:00-11:20 Pappas Ch. SLAC A Solid State Induction Modulator for the NLC
- 11:20-11:40 Adler R. North Star Research Corp. Pulsed Switch Modulator Technology for Fast Pulse Generation
- 11:40-12:10 **Chairman's review/discussion and questions**
- 12:10-13:30 **Lunch break**

**Session 2-3 Klystron-Modulator Design-2 - chairman S. Choroba (DESY)**

- 13:30-13:50 Crewson W. Crewson Engineering Ltd. A New Solid State High Power Pulsed Modulator
- 13:50-14:10 Juengst K. ITP 25 MW SMES-based long-pulse klystron modulator
- 14:10-14:30 Cassel R.L. SLAC A Solid State Induction Modulator for Long Pulse Applications
- 14:30-14:50 Akemoto M KEK Solid-State Switching Modulator R&D for Klystron
- 14:50-15:20 *Coffee/tea break+ exhibits*
- 15:20-15:40 Kaesler W. PPT 20-MW Long-Pulse-Klystron Modulator
- 15:40-16:00 Gold S. SLAC Test Results of a Compact Conventional Modulator for Two-Klystron Operation
- 16:00-17:30 **Chairman & Session chairmen's discussion and review of the Workshop**
- 17:30 *Escorted Visit to the CTF2 accelerator facility , preceeded by a brief introduction by H. Braun in the Conference Room. (please register for this visit during the workshop)*

**Open Poster Session**

- Cordingley B. Lilco Ltd. Some Observations on the Performance of Modern Wideband Current Transformers in Pulse Current Measurement Applications
- Dunlop A. Dynex Solid State Thyatron Replacement
- Shidara T. KEK Klystron operation statistics at KEK electron/positron injector linac.
- Vincent C. TPC FIM Technology
- Vossenber E. CERN Modular solid-state switch for the SPS and LHC beam dump systems

*Last updated by tk on Wednesday, April 25, 2001*