

**Programme d'activités
de la section
CTF
du groupe Production de Leptons (LP)**

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Copies des documents présentés à la
réunion du groupe LP du 16 mars 1992

Distribution:

Groupe LP

Accelerator physics section

- **Staff**

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- **Main job**

- CLIC Test Facility,
- CLIC.

- **Other jobs**

- LPI, B-factories, Taucharm Factories, Ions, etc.

• CLIC Test Facility

- Optics
 - * Detailed lay-out,
 - * Parameter list.
- Simulations
 - Catalogues of simulation results for the RF Gun and beam transport.
- Variants
 - * Study on Alpha-magnet,
 - * Gun in front of accelerating structure etc..
- Simulation programs maintenance
 - TBCI-SF, Parmela, Priam, Mafia etc...
- Special studies
 - * Beam loading in the 3 GHz structure,
 - * Space charge effects on bunched beams
- Understand what others do
 - * 30 GHz generation,

 - * 30 GHz transfer

• CLIC

– Drive beam injector

Can we work out a scheme which works.

- * The many guns and linacs in parallel
- * The damping ring
- * The wiggler plus laser buncher

– The drive beam itself

Beam dynamics, stability, etc...

– The main linac–drive linac optimization

Can we find a scheme more reasonable for the Drive beam.

– The main beam injector

Photocathodes?

– Understand what others are doing

Final focus, main accelerating structures, transfer structures ...)

– What after CTF

Can we propose a credible extension of the CTF program, or a new program on a different line of study?

- **Other jobs**

- **LPI**

- not much to do, but reserve in case of trouble

- **Factories**

- Not really in the section

- **Ions (Pedro)**

- Thesis work to review what is known, introduce ion detection via **Bremstrahlung** measurements at CERN, and if possible improve the predictive power of present theories (rather poor).