

#### LINEAR COLLIDER COLLABORATION

Designing the world's next great particle accelerator

#### Posipol 2014 Summary

M. Kuriki and W. Gai

Posipol2014, Ichinoseki, Iwate, 2014/8/27-29

### **Posipol 2014**

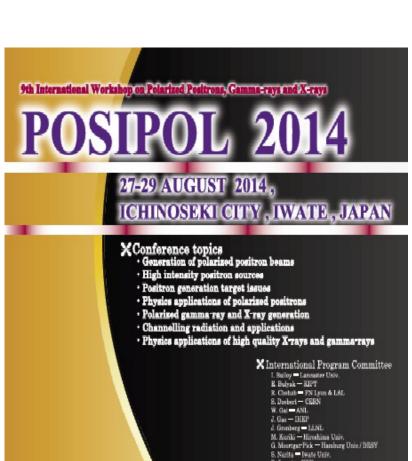
Electron/FEL/other: 3

Undulator: 7

Laser Compton/X-ray: 7

Conventional/KEKB: 12





L. Ritedit — CERN
F. Skaudenbei — BiBSY
T. Takabasaki — Riteditina Univ.
J. Urakawa — KER
A. Ushakus — Hensburg Univ. J DESY
E. Yakaya — HER
A. Variets — LAL
F. Zimmeranna — CEBN
F. Zoner — LAL

X. Local Organizing Committee
S. Araki — KER
H. Chiba — Isola Univ.
E. Rada — KER
S. Naria — Feats
S. Naria — Feats
S. Naria — Feats
S. Naria — Joseph Univ. (Co-Chair)

## Recommendation Ferrofluid sealed and water cooled

Recommendation with the highest priority.

- a) Resume the water-cooled ferro-fluid sealed target test with modifications. (1M USD, 2014-2015)
- b) If (a) is successful, we construct the target equivalent to the real machine. (3 M USD, 2015-2017)
- c) Endurance test of the target (2017)

# Recommendation Non-water cooled

- a) Investigate several critical aspects to establish the conceptual design of the non-water cooled target. (2014-2015)
- b)Some basic tests, e.g. friction with lubricant, material dilution, out gas rate, etc. if it is possible with a limited amount of money. (2014-2015)
- c) If (a) and (b) are successfull, a mock-up is constructed (3.1 M Euro + 5.5 Man.year) which is compatible to examine radiation cooling and contact cooling. (2 years)

## Recommendation 300kHz electron driven

- a)It is desirable to have a technical backup from a project point of view.
- b) Finish the target prototyping and endurance test. (2014-2016)
- c) Complete TDR level design (2015).
  - a) Fix the lattice, components with cost estimation. TDR cost estimation can be reused.
- d)Establish engineering design (2016-2017)



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