Document preparation ALEGRO

The ALEGRO report for the European Strategy Study 2020 discussion in WG4

ALEGRO 2018

- 1. **Introduction**; vision statement
- 2. **Review of the ANAR 2017 report**: reference
- 3. **Facilities using advanced acceleration**: ongoing project, current investments, results/status, spinoffs or synergy with other applications
- 4. **Our long-term goal: the Collider of the Future (COF), call for a better name? Compact Linear Collider? introduce a few sets of parameters,** discuss what is needed from the advanced accelerator technology so that the pieces fit together
- 5. **Physics considerations that justify the parameters of the COF energy and luminosity** (30 TeV, 10^36) (250GeV, ??), (1TeV, ??)
- 6. **COF CLC Machine components**
  For each component: what is achieved already ? what are the next milestones ? what are the possible show-stoppers, and how can these be addressed? planned near term test facilities
- **7. integrated system**: 7.1tolerances, 7.2 instrumentation, 7.3 simulation
- 8. **Partners and resources, current activity level. what is needed? What do we support?**

The ALEGRO report for the European Strategy Study 2020 with names for WG4

- 1**. Introduction**; vision statement Eric Esarey
- 2. **Review of the ANAR 2017 report**: reference
- 3. **Facilities using advanced acceleration**: Eu :Ralph Assman, US: Carl Schroeder, Asia:
- 4. **Our long-term goal:** Carl Schroeder, Dan Gordon, Daniel Schulte
- 5. **Physics considerations that justify the parameters of the COF energy and luminosity** (30 TeV, 10^36) (250GeV, ??), (1TeV, ??) physics group

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- 6. **COF CLC Machine components**
- 6.1 e-/e+ sources, cooling; Oznur Apsimon+positron group+Stefan Karsch (contributes)
- 6.2 accelerating structures; Simon Hooker, Pawan Kumar
- 6.3 Coupling/transport components between stages; Jens Osterhoff, Maxence Thevenet,
- 6.4 drivers , lasers Wim Leemans, Laura Corner, Stefan Karsch (contributes)
- 6.5 BDS: IP components and detectors, Andrei Seryi, Ralph Assmann, Stepan Bulanov
- **7 integrated system**:
- **7.1 tolerances**, Carl Schroeder, Daniel Schulte, PHI Nghiem/Jorge Viera
- **7.2 instrumentation**, Roxana Tarkashian, Jeroen van Tilborg
- **7.3 simulation** WG TMS
- 8. **Partners and resources, current activity level. what is needed? What do we support?** Simon Hooker, Brigitte Cros

Time plan and organisation for report

WG contribution expected end of May, WG leaders coordinate in their WG

1st complete draft in June, prepared from WG contributions by editing group (BC, PM, CS, volonteers among WG leaders?)

Distribution (ALEGRO and beyond) end of June for feed back until end of July

Discussion of available draft on August 12th AAC meeting

Communication about ALEGRO

Website:

Webpage in the ICFA ANA website

Repository for documents and links

Showcase for ANA related activity

Provide input

http://www.lpgp.u-psud.fr/icfaana/front-page

Talks at conferences : accelerators/HEP

May ARIES project meeting (P. Muggli)

July 4-11, ICHEP Corea: submit abstract, who can give this talk? **Abstract Urgently needed**

August AAC (B. Cros)

16-21 September, LINAC18 (B. Cros)