Minutes of HSS meeting held on 18/3/2015

Presents: H. Burkhardt, R. De Maria, M. Fiascaris, M. Giovannozzi, P. Hermes, A. S. Langner, A. Latina, M. McAteer, T. Mertens, D. Mirarchi, T. Persson, A. Rossi, G. Roy, M. Serluca, I. Shreyber, P. Skowronski, R. Tomás, G. Valentino.

- Report from meetings
  - General information (Massimo Giovannozzi)
    - IPAC papers should be submitted for approval by 3/4.
    - It is proposed that doctoral students in their second or third year make presentation on their work at the ABP information meetings.
  - PS status and LIU studies (Simone Gilardoni)
    - Nothing to report
  - Collimation Status (Stefano Redaelli)
    - Nothing to report
  - MAD-X status (Ghislain Roy)
    - A number of changes has be proposed for the next version 5.02.05
      - ECOLLIMATOR, RCOLLIMATOR are do-nothing elements. The proposal has been considered too drastic (it is not backwards compatible). An alternative approach will be proposed.
      - RACETRACK aperture has been generalized to accept elliptical corners, with 4 arguments. This will entail some changes to be made to the LHC aperture model. The change of definition of the RACETRACK shape should also be communicated to Samy Chemli to implement it in the official layout database.
      - A new shape, OCTAGON, has been implemented as per request by Riccardo.
      - Definition of beam emittances is not uniform in the various modules: it will be fixed at 1 sigma.
      - EXN, EYN attributes of aperture command have been removed and will be taken form the BREAM command. This is certainly a good move, but not backward compatible…
      - MAKEDIPEDGE = true becomes the default.
      - STYLE TEAPOT becomes the default.
    - The 5.02.05 version will need careful checking before becoming pro release!
  - SixTrack status (Riccardo De Maria)
    - Work is in progress together with Adriana and collimation team to merge the test suite.
    - Any change to the code will be discussed among three advisors, namely Riccardo, Eric, and Adriana.

- Code developers are requested to make sure that the new code passes the existing tests and possibly, should contribute new tests.
- Recent additions:
  - Code from Regina for dumping turn-by-turn data in htf5 format.
  - Dynamic kicks code is ready for commit. This new module will supersede the old RIPLE block.
- Developments:
  - Aperture checks in SixTrack are being developed by Alessio and should be ready in about a month.
  - Fluka interface, effectively a more general particle exchange interface is in preparation.
  - Wire element is being reviewed.
- It is planned to have some SixTrack meetings over the year to co-ordinate the activities.
  - On-line model status (Piotr Skowronski)
    - Online model checked/modified/improved in sector test!
    - GUI will become more intuitive.
- Main presentations
  - bv flag for crab cavities (Andrea Latina)
    - A general review of the bv flag for magnetic elements has been made, following the specification document prepared by Stephane.
    - The specific case of RF cavities and RF multipoles requires special care. Following a very long discussion it is decided to come back to the topic in a future meeting to agree on the final implementation of the bv flag for cavities.