

# Full Simulation Planning

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# Goals:

the main focus will be on the machine background

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- ❖ Beam line shield optimization
  - ❖ Shape & material
- ❖ Neutrons from the radiative Bhabha
  - ❖ flux reduction and moderation
- ❖ Touschek and beam gas component simulation
- ❖ Still some pending issues on simulation validation (un physical parameters tuning)



# Code development

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- ❖ Bruno code splitting: migration from the present monolithic package to a modularized source code structure
  - ❖ Involved people: Andrea Di Simone, Eugenio. When? Before Elba?
- ❖ Optical model for the DIRC and the forward TOF (Andrea, Doug Roberts, Leonid Burmistad). After the code migration.

# Background frame validation

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- ❖ Worrisome discrepancy among Bruno bkg. simulation with respect to the fast one.
  - ❖ ? bug in the background frame import procedure?
  - ❖ ? misunderstanding at the fast/full interface?
  - ❖ ? bug in the Bruno simulation ?
  - ❖ ? poor fast approximations ?
  - ❖ ? bug in the comparison ?
- ❖ ! Hard work ahead !



# Schedule

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- ❖ Background frame validation by mid of May.
- ❖ Bruno migration (one week full time Andrea + Eugenio) after the complete validation of the background frame and before Elba meeting (hopefully).
- ❖ Full sim production: ~ 1 M bunch crossing in May.