



Contribution ID: 1508 Contribution code: MOPG01

Type: **Poster Presentation**

## Effects of the ALBA slab movement on ALBA-II

*Monday, 20 May 2024 16:00 (2 hours)*

ALBA, the Spanish third generation synchrotron light source, is studying the future construction in the same location of a fourth generation light source called ALBA-II. Since the construction of ALBA in 2008, its critical slab has moved significantly, changing with it the accelerator elements positions. In this study, the effects on closed orbit and beam optics errors are simulated from data of the survey campaigns on the ALBA storage ring and compared to measurements in terms of orbit, linear optics, and orbit correctors budget. The results of this study on ALBA are used to infer the effect of the slab movement on the future machine through simulations, predicting yearly and seasonal changes. Plausible correction methods are discussed.

### Footnotes

### Funding Agency

### Paper preparation format

### Region represented

Europe

**Primary author:** BLANCO-GARCÍA, Oscar (ALBA-CELLS Synchrotron)

**Co-authors:** BENEDETTI, Gabriele (ALBA-CELLS Synchrotron); LADRERA FERNÁNDEZ, Jon (ALBA-CELLS Synchrotron); LLONCH, Marta (ALBA-CELLS Synchrotron); CARLÀ, Michele (ALBA-CELLS Synchrotron); MARTÍ, Zeus (ALBA-CELLS Synchrotron)

**Presenter:** CARLÀ, Michele (ALBA-CELLS Synchrotron)

**Session Classification:** Monday Poster Session

**Track Classification:** MC2: Photon Sources and Electron Accelerators: MC2.A04 Circular Accelerators