

# Study of Intrabeam Scattering (IBS\_Study)

## PERSONNEL

V. Lebedev, A. Valishev, A. Romanov,

## PURPOSE AND METHODS

The goal of this experiment is a verification that we understand the machine and its instrumentation. The data analysis will verify the accuracy of the measurements for bunch length, bunch sizes/emittances and momentum spread. It also will result in the dynamic/physical aperture and the average vacuum in the ring. This study is an addition to the studies which we carried out earlier but with acquiring important details which were missed.

## BEAMCONDITIONS

Beam circulating in the IOTA with up to 4 mA beam current. Operating synchrotron monitors, BPMs, longitudinal damper and well-known (measured) optics.

## APPARATUS

Nothing in addition to the listed above

## RUNPLAN

We need one shift. If data analysis will show discrepancies it may require another shift for more detailed measurements. Data analysis will require few days.

## FUNDING

No additional funding.