



Contribution ID: 79

Type: poster

## Status of the development of single shot emittance measurement at SPARC\_LAB

*Wednesday, September 18, 2019 7:00 PM (1 hour)*

In order to measure emittance in single shot, it is necessary to obtain information about beam spot, angular divergence and correlation term. The former and the second terms can be provided by a simultaneous measurement of beam size and Optical Transition Radiation (OTR) angular distribution. The latter is acquired by means of a microlens array, producing several contiguous replicas of OTR angular distribution. We report here the first results and the status of the development of this technique.

**Primary author:** CESARINI, Matteo (INFN / LNF)

**Co-authors:** CIANCHI, Alessandro (ROMA2); DEL DOTTO, Alessio (INFN); MOSTACCI, Andrea (ROMA1); BIGIONI, Angelo (LNF); VACCAREZZA, Cristina (LNF); DI GIOVENALE, Domenico (LNF); CHIADRONI, Enrica (LNF); VILLA, Fabio (LNF); BISESTO, Fabrizio Giuseppe (LNF); COSTA, Gemma (LNF); DI PIRRO, Giampiero (LNF); SCIFO, Jessica (LNF); MAGNISI, Lorenzo (Istituto Nazionale di Fisica Nucleare); BELLAVEGLIA, Marco (LNF); DIOMEDE, Marco (LNF); MARONGIU, Marco (LNF); ANANIA, Maria Pia (LNF); FERRARIO, Massimo (LNF); CASTELLANO, Michele (LNF); CROIA, Michele (LNF); POMPILI, Riccardo (LNF); ROMEO, Stefano (LNF); MARTINELLI, Valentina (LNF); SHPAKOV, Vladimir (LNF)

**Presenter:** CESARINI, Matteo (INFN / LNF)

**Session Classification:** Cheese and Wine Poster Session 2

**Track Classification:** WG5 - Plasma devices, plasma and beam diagnostics