



1. Title:	The italian national FIRB project on EUV lithography-
2. Full names of all authors:	A. Reale-d, G. Baldacchini-a , A. Baldesi-f, C. Bellecci-j, S. Bollanti-a, F. Bonfigli-a, G. Clementi-f, A. Conti-b, T. Dikonimos-g, P. Di Lazzaro-a, F. Flora-a, M. Francucci-j, P. Gaudio-j,A. Gerardino-h, R. Giorgi-g, A. Krasilnikova-g, T. Letardi-e, N. Lisi-g, T. Marolo-b, S. Martellucci-j, V. Mattarello-i,c, L. Mezi-a, R.M. Montereali-a , D. Murra-a, E. Nichelatti-g, P. Nicolosi-c, G. Nocerino-k, L. Palladino-d, A. Patelli-c,i, M.G. Pelizzo-c, A. Piegari-g, M. Richetta-j, V. Rigato-i, A. Ritucci-e, A. Rydzy-j, A. Santoni-a, F. Sarto-g, F. Scaramuzzi-b, E. Tefouet Kana-b, G. Tomassetti-d, A. Torre-a, C.E. Zheng.-f.

3. Abstract body:

The Italian National Project “FIRB-EUVL” is introduced and discussed. This project includes the realization of a micro-exposure-tool and the up-grading of the National knowledge on EUV-lithography in all its aspects, from plasma sources (both high power sources and auxiliary sources for tests), debris mitigation, multilayer mirrors, and masks. The micro-exposure-tool, which is under development, will be operated at a wavelength slightly different from the international standard of 13.5 nm in order to allow the use of an innovative debris mitigation system. A novel application of EUVL to photonics is also reported.