

Preface

Recent advancement of high power laser technologies enables us to open a new horizon of neutron sources along with conventional ones based on accelerators and nuclear reactors. Various types of short-pulse, high-fluence neutron sources have been developed including laser-driven fusion, laser accelerated ion beams, photonuclear reactions, cluster-explosions, as well as various types of accelerators. And, these neutrons are used in a wide variety of applications for such as material science, medical science, non-destructive investigation, security, and neutron radiography.

The first international meeting (Laser and Accelerator Neutron Sources and Applications: LANSA) was held in 2013 to overview the status and future prospects of relevant fields. Since the late 2015, a national project of Japan (A-STEP) has started aiming at innovative improvement of compact neutron sources based on both laser and accelerators dedicated for industrial applications. Upon these backgrounds, the 2nd forum LANSA'17 was held in order to provide an extended opportunity for participants to exchange mutual information and activate their own researches.

To record invaluable research results discussed in this conference, corresponding 17 proceedings have been published in Plasma and Fusion Research. All efforts devoted to this work by Isao Murata and Mitsuo Nakai of Osaka University should be gratefully appreciated. Finally, I would like to thank all of the participants for fruitful discussions and the IFE Forum for partial, financial support.

Conference Chair

Hiroaki Nishimura

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