

# **Photonic Band Gap Accelerating Structures Progress Report**

2Q FY18

In the second quarter of FY18 the wakefield experiments at Argonne Wakefield Accelerator (AWA) were put on hold due to the malfunctioning laser at AWA. The experiments are planned to re-start in April of 2018 with the goal to collect necessary data for the International Particle Accelerator Conference (IPAC 2018).

The fabrication of the structure for the high gradient testing at SLAC National Accelerator Laboratory is now complete and the structure was delivered to SLAC National Accelerator Laboratory. We are awaiting SLAC's response to determine the timeline for tuning, brazing, and high gradient testing of the structure.

The PI (Evgenya Simakov) has worked with Valery Dolgashev and Sami Tantawi at SLAC to complete the review paper on high gradient accelerator structure for a special issue of the Nuclear Instruments and Methods in Physics Research – A. The paper is now accepted for publication in Nuclear Instruments and Methods to be published in the Special issue in honor of the 100<sup>th</sup> birthday of the founding editor Kai Siegbahn.

The PI (Evgenya Simakov) attended the US Particle Accelerator School and taught the class on the High Gradient RF Structures. The postdoc (Janardan Upadhyay) attended the US Particle Accelerator School and auditioned the same class.