Final Technical Report for the Conference Support Grant
"Fundamental Physics of Ferroelectrics 2019"

Award Number: DE-SC0019520
Award Period: 01/15/2019 to 01/14/2020
Applicant: University of South Florida
PI: Prof. Inna Ponomareva
Dates of the workshop: Jan 27- 30, 2019
Location: University of South Florida, Tampa, FL
Organizers: Ronal Cohen (Carnegie Institution of Washington), Peter Gehring (NIST), Sergey Lisenkov (University of South Florida), Inna Ponomareva (University of South Flroida), James Rondinelli (Northwesten University), Zuo-Guang Ye (Simon Fraser University).
Website: https://www.materialsbydesign.org/ferro2019

The workshop "Fundamental Physics of Ferroelectrics 2019" took place in January 2019 at USF and hosted around 80 participants (from both US and overseas) 32 of whom were early career professionals (PostDocs and graduate students). This was a 2.5 day workshop with 8 invited presentations, 39 oral presentations, and 27 posters. It brought together experts in the area of ferroelectrics and related materials and allowed for interactions, collaborations and exchange of ideas and progress. The invited speakers were Jorge Iniguez (University of Luxembourg), Manila Songvilay (University of Edinburgh), James Scott (St. Andrews), David Singh (University of Missouri), Philippe Ghosez (Université de Liège), Marin Alexe (University of Warwick), Takeshi Egami (University of Tennessee), Sergey Vakhrushev (Ioffe Physical Technical Institute), and Karin Rabe (Rutgers University).

The DOE funding was used

(i) to provide awards for junior participants (graduate students and PostDocs): best oral presentations (1^{st}, 2^{nd} and 3^{rd} places) and best poster presentations (1^{st}, 2^{nd} and 3^{rd} places). First places in both categories $300, second places in both categories $250 and third places in both categories $200. Information about the awardees available at the conference website.

(ii) to provide travel support for 17 junior participants in the amount of $280 per participant.

Dissemination: There is no published proceedings for the workshop. However, the workshop program and extended abstracts are available at the workshop website. All recordings of the oral presentations are also available through the conference website.

Broader Impacts of the Award: The meeting allowed for timely and stimulating exchange of ideas and progress in the area of the ferroelectrics and related materials. The close collaborative format of the meeting with joined meals, morning to night agenda, and no parallel sessions created productive and highly integrated atmosphere where researchers with different expertise were able to communicate and exchange ideas. This was especially beneficial to junior participants since they got the opportunity to interact with the leaders in the field. Moreover, junior participants were able to present their work in the same format as the established researchers and were recognized through awards. Half of the awardees were female junior participants which illustrates the appeal of the meeting for this underrepresented in STEM population. The recordings for all oral presentations are available at the conference website so that many more researchers can continue benefitting from it.