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E. L. Compaan* (compaan@mit.edu). *Low Regularity Global Existence for the Periodic Zakharov System.*

In this talk, we present a low-regularity global existence result for the periodic Zakharov system. This is a dispersive model for the motion of ionized plasma. Its dynamics have been extensively studied, and existence of solutions is known for data in the Sobolev space $H^{\frac{1}{2}} \times L^2$. We present a global existence result which holds for even rougher data, in a class of Fourier Lebesgue spaces. It is obtained by combining the high-low decomposition method of Bourgain with an almost-conserved energy result of Kishimoto. Combining these two tools allows us to obtain a low-regularity result which was out of reach of either method alone. (Received February 19, 2018)