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Particle Acceleration in Electron-only Reconnection¹ CRISTIAN VEGA, Department of Physics, University of Wisconsin - Madison, VADIM ROYTERSHTEYN, Space Science Institute, GIAN LUCA DELZANNO, T-5 Applied Mathematics and Plasma Physics Group, Los Alamos National Laboratory, STANISLAV BOLDYREV, Department of Physics, University of Wisconsin - Madison — Observations of the Earth's magnetosheath by the NASA Magnetospheric Multiscale (MMS) mission have drawn attention to reconnection events in which only electron outflows were detected, without accompanying ion jets [1]. In [2] we detected these electron-only reconnection events in 2D numerical simulations of kinetic-Alfvén turbulence ran with particle-in-cell code VPIC and found their sizes to be smaller than the ion inertial scale and the reconnection rate to be close to 0.1. In this presentation we study particle heating in these novel reconnection events both numerically and analytically. [1] Phan, T. D., Eastwood, J. P., Shay, M. A., et al. 2018, *Nature*, 557, 202. [2] Vega, C., Roytershteyn, V., Delzanno, G. L., Boldyrev, S., 2020, *The Astrophysical Journal Letters*, 893, L10.

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