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Radhakrishnan Balu*, radhakrishnan.balu.civ@mail.mil, and **Daniel Castillo** and **George Siopsis**. *Topological quantum walks and their experimental implementations*.

We find the time-continuous limit of topological split-step quantum walks, with $d = 2n$ dimensional walker Hilbert space H_w , and their physical implementations using $n + 1$ qubits. The corresponding circuit implementations were then ran experimentally using the IBM-Q 5-qubit quantum computer. Using IBM-Q we were able to experimentally verify the known bound states of the topological split-step quantum walk. (Received September 01, 2017)