

1146-35-211

**Truong-Son Van\*** ([sonv@andrew.cmu.edu](mailto:sonv@andrew.cmu.edu)). *Existence of Solitary Waves in One Dimensional Peridynamics.*

We give a rigorous proof of existence for solitary waves of a peridynamics model in one space dimension proposed by Silling. We adapt the framework developed by Friesecke and Wattis for the Fermi-Pasta-Ulam-Tsingou lattice equations to treat a truncated problem which cuts off short-range interactions, then pass to the limit. (Received January 22, 2019)