Energy-efficient Edge-centric Graph Processing on FPGA

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Introduction and Background

Graph analytics is widely used in many areas
- Social network
- Internet
- Road network

Obtaining high performance is challenging
- Massive datasets
- Poor locality of memory accesses
- High data-access-to-computation ratio

Algorithm and Optimization

Edge-centric (gather-scatter) paradigm

Target platform

Memory power optimization

Data layout optimization

Experimental Results

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