## Multiple-Source Context-Free Path Querying in Terms of Linear Algebra

Full-stack support of context-free path queries<sup>1</sup>

- Multiple source CFPQ algorithm based on sparse linear-algebra
- Cypher graph query language extension<sup>2</sup> to express the constraints
- RedisGraph<sup>3</sup> database based on linear algebra which supports Cypher

Context-free path queries in real-world applications which use RedisGraph database with Cypher query language.

 $\label{lem:com/YaccConstructor/RedisGraph/blob/master/docs/CFPQ.md Contact us: s.v.grigoriev@spbu.ru$ 

<sup>&</sup>lt;sup>1</sup>Like regular path queies (RPQ), but strictly more expressive

<sup>&</sup>lt;sup>2</sup>https://github.com/thobe/openCypher/blob/rpq/cip/1.accepted/CIP2017-02-06-Path-Patterns.adoc <sup>3</sup>https://oss.redislabs.com/redisgraph/