

Pleasingly Parallel

Classic MapReduce

Map-Collective

MP2P Map Point-to-Point

Map Streaming

Shared Memory

Single Program Multiple Data

Bulk Synchronous Parallel

Fusion

Dataflow

Agents

Workflow

Geographic Information System

HPC Simulations

Internet of Things

Metadata/Provenance

Shared / Dedicated / Transient / Permanent

Archived/Batched/Streaming

HDFS/Lustre/GPFS

Files/Objects

Enterprise Data Model

SQL/NoSQL/NewSQL

**Ogre
Views and Facets**

Performance Metrics

Flops/Byte

Flops/Byte; Memory I/O

Execution Environment; Core Libraries

Volume

Velocity

Variety

Veracity

Communication Structure

Iterative / Simple

Metric = M / Non-Metric = N

$O\left(N^{2}\right)$ = NN / $O(N)$ = N

Regular = R / Irregular = I

Dynamic = D / Static = S

Visualization

Graph Algorithms

Linear Algebra Kernels

Alignment

Streaming

Optimization Methodology

Learning

Basic Statistics

Global Analytics GML

Local Analytics LML

Micro-benchmarks

Recommendations

Classification

**Problem**

**Architecture View**

**(AV)**

**Data Source and**

**Style View (DV)**

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Search / Query / Index

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Data Abstraction

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**Execution View**

**(EV)**

**Processing View**

**(PV)**