

# Patterns for Realtime Streaming Analytics

Remark: Work in progress

Based on the [DEBS 2015 Tutorial](#) "Tutorial 1: Patterns for Realtime Streaming Analytics" by Srinath Perera, Sriskandarajah Suhothayan we will show how Odysseus can be used for the following streaming analytics pattern.

In the following we will show different processing scenarios. All scenarios are build with [Procedural Query Language \(PQL\)](#) and for many cases we use the Nexmark scenario ([Getting Started with Nexmark](#)). You should also have installed the nexmark source ([Simple Query Processing](#)).

All queries defined in Odysseus are data pipelines, i.e. data is received from one operator, processed and send to the next operator. By this, complex processing pipelines can be built.

- [Pattern 1: Preprocessing](#)
- [Pattern 2: Alerts and Thresholds](#)
- [Pattern 3: Simple Counting and Counting with Windows](#)
- [Pattern 4: Joining Event Streams](#)
- [Pattern 5: Data Correlation, Missing Events, and Erroneous Data](#)
- [Pattern 6: Interacting with Databases](#)
- [Pattern 7: Detecting Temporal Event Sequence Patterns](#)
- [Pattern 8: Tracking](#)
- [Pattern 9: Detecting Trends](#)
- [Pattern 10: Running the Same Query in Batch and Realtime Pipelines](#)
- [Pattern 11: Detecting and Switching to Detailed Analysis](#)
- [Pattern 12: Using a Model](#)
- [Pattern 13: Online Control](#)