

Naming Convention for the LVK Gravitational Wave Transient Catalog

LIGO-Virgo-KAGRA Collaboration

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The LVK Gravitational Wave Transient Catalog (GWTC) is a cumulative dataset containing data on all transient events reported by the LIGO-Virgo-KAGRA (LVK) Collaboration. These events are keyed primarily on the time of the event. Released versions of the catalog will have major and minor numbers in the format:

GWTC-*<major>.<minor>*

The major number is determined by the span of time containing all events in the catalog as described below. Each version is a superset of the previous, so that, for example, GWTC-3.0 contains all the events in GWTC-2.1 (apart from retracted events). In general:

- The major number is incremented when the span of time of transients included in the catalog is increased.
- The minor version resets to 0 when the major version number is increased (as usual).
- The minor version is incremented when there is a change in the data (additional data, modified data, or removed data) contained in the catalog within the current timespan covered. For example: the addition of a new transient event within the timespan indicated by the current catalog's major number.

The time span covering the transient events contained in the catalog indicated by the major number is as follows:

GWTC-1.X contains events occurring in data taken before 2018-10-01 only.

GWTC-2.X contains events occurring in data taken before 2019-10-01 only.

GWTC-3.X contains events occurring in data taken before 2020-05-01 only.

GWTC-4.X contains events occurring in data taken before 2024-01-31 only.

Minor versions are incremented if events occurring in data already covered by the time bounds of the current catalog's major number are added, modified, or removed.

Document History

2023-12-07 Version 2 approved by LSC, Virgo, and KAGRA Replaces LIGO-M2000123-v1
2020-05-12 Version 1 approved by LSC and Virgo