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| <ul style="list-style-type: none"> <li>• <b>Emmy Noether: (German: <i>nø t</i> ; official name Amalie Emmy Noether; 23 March 1882 – 14 April 1935), was an influential German mathematician known for her groundbreaking contributions to abstract algebra and theoretical physics.</b></li> <li>• <b>Noether's (first) theorem: states that any differentiable symmetry of the action of a physical system has a corresponding conservation law.</b></li> </ul> | <p>.....</p> |
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## What is Noether?

- Noether is a simple LHCb project, part of the LHCb software stack.
- Almost without fail, each LHCb component library project has a corresponding project which holds "applications", i.e. configures and runs production programs within the components of that project.
  - ◆ Rec -> Brunel
  - ◆ Analysis -> DaVinci
  - ◆ Hlt -> Moore
- The most base level of LHCb software is kept within a cmt project structure simplistically named **LHCb**, and it also has a wrapper application project.
- Noether is to LHCb as Moore is to HLT.
- **Noether's (LHCb) Theorem:** states that any LHCb component library project has a corresponding application wrapper named after a famous scientist.

Noether is designed to:

- Be lightweight
- Be simplistic
- Hold simple configurables for doing simple actions

Since the redesign of the packaging structure in 2013 to ensure that all LHCb files are in principle readable with just the LHCb project, Noether has many possible applications.

## Which applications exist?

- FileMerger: a simple configurable for adding files end-to-end.
- CondDBUI: a browser/editor/cli for the CondDB
- EventIndexer: the Yandex application slides [↗](#) Indexer [↗](#)

## Resources:

- Doxygen [↗](#)
- SVN [↗](#)

- [Website \(did not exist at the time of writing this TWiki\)](#)

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-- RobLambert - 21 Mar 2014

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