# cms-opendata-guide Documentation

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!!! Warning This guide is under construction

Welcome to the guide for CMS open data. This guide is brought to you by the CMS open data group, on a best-effort basis. All software and instructions are provided "as is", without warranty of any kind. This is ongoing work and we appreciate your feedback and/or your help building this guide.

### CHAPTER 1

How to use this site

The lefthand tabs will help you navigate the site. If you click on each tab, it will expand to show further subsections. The sections will guide you through the main topics you will need to become familiar with to conduct an analysis using CMS Open Data. You'll learn about the computing tools needed to deal with CMS open data and about **CMSSW**, which is the software used by CMS. You'll also learn how to conduct a particle physics analysis.

# CHAPTER 2

#### The site's philosophy

This site is thought as a navigation aid. The CMS Collaboration has built an extensive amount of documentation over the years. However, given the nature of our rapidly evolving research activities, this documentation is usually scattered around, which makes it difficult to navigate. The main goal of this guide, therefore, is to facilitate the usage of CMS open/legacy data by providing a structured set of instructions that agglutinate those pieces of information already available in other sites. In this sense, we do not pretend to copy every little piece of information and/or code, but to help you get to it and find your way around it.

For CMS open data the three main sources of documentation/information are:

· The CMS public Twiki pages. Particularly the workbook and the software guide

!!! Note When accessing the CMS twiki pages we will usually point you to the most recent page. However, historical Twiki documentation, i.e., earlier revision of the pages, may provide more accurate information for open data that is already a few years old. One can access this historical archive by going to the bottom of any Twiki page, clicking on **History** and exploring the revisions closer to the open data release year.

- The CERN CMS Open Portal pages. This portal is not exactly meant to archive documentation. It is mainly a repository for our open data. However, it does host important information that is not so easy to find. This guide will point you to the right pages.
- The CMSSW code. Although less conventional, exploring the CMSSW code could be a really good source of information. For instance, having hundreds of trigger bits, if the information from a specific module used in a specific trigger (with which data was taken) was needed, it would be impossible to document that explicitly in some guide. Instead, one can explore the code and easily find out the needed information. We will try to show you how it is done.

# chapter $\mathbf{3}$

How to get help

The best way to get additional help is to visit our open data forum.

## CHAPTER 4

#### How to contribute or contact us

Please follow these instructions if you would like to contribute.

If you find bugs or have suggestions or recommendations to improve this guide, please fill out an issue or contact us.