



W2D2Memo 1

13 October 2023

Hello everyone,

We've expanded the list of people getting this World Wide Data Day (W2D2) Memo to be sure everyone who wants to has a chance to join or encourage others to do so. So, welcome QuarkNet mentors, alumni, and advisors and welcome to our past (and we hope present and future) videoconference moderators!

If you have not already done so, you are invited to join W2D2, which will be held this year all day UTC on **Thursday 9th November 2023** – about four weeks away. W2D2 is a chance for high school students to make a simple but meaningful analysis of data from the LHC. *It can all be done by a teacher and students at school within about two hours, from start to finish, including the 30 minute videoconference.* Read all about it at <https://cern.ch/w2d2>.

Register at <https://cern.ch/w2d2-reg>. Registrations close at midnight UTC on Wednesday 1st November.

These Memos will continue for those who register to help them prepare according to this schedule, within appropriate error bars:

- Fri 13 Oct - Memo 1 - and here we are
- Fri 20 Oct - Memo 2
- Fri 27 Oct - Memo 3
- Fri 03 Nov - Memo 4
- Mon 06 Nov - Memo 5, if needed
- Thu 09 Nov - World Wide Data Day.

Here are some highlights from the website:

- *Homepage - Resources.* The Intro slides are the updated version for the current measurement: PHI and THETA. They should be helpful in your classroom.
- *Homepage - Resources.* There are two spreadsheets. The "Local Google Sheet 2023" is for your class. The teacher can make a copy of this and share with students to record the results from their tally sheets. The "Worldwide Google Sheet 2023" is for teachers to report class results. You do not need to use the Local sheet - you can collect results from students and make class histograms or collect results as you decide. However, you must report class results on the Worldwide sheet.
- *What about delta-PHI?* This measurement is no longer included as of last year – PHI and THETA are enough. That said, the delta-PHI measurement is a good one and we plan to bring it out as part of the QuarkNet Data Activities Portfolio (<https://quarknet.org> > DATA ACTIVITIES) very soon.
- *ATLAS and CMS pages.* We have two screencasts for students on each of these pages. The first presents an overview of W2D2 based on the Intro slides and the second is a step-by-step procedure for making the measurement. All students (and teachers!) should view these screencasts.



More:

- *Teacher Q&A.* As we get close to the final week, we will have one or two zoom sessions for teachers to ask any questions and discuss the measurements. Stay tuned for an announcement of dates and times in Memo 3.
- We will need physicist moderators for 9th November UTC! If you know (or are) a physicist who might be interested, please contact Shane or Ken and we will follow up.

Finally, teachers have asked some great questions in the past. These are reproduced with answers in the Q&A resource on the web page. And please email us your questions for inclusion in the Q&A.

All the best,

Ken Cecire and Shane Wood

QuarkNet Staff, W2D2 Coordinators