1. Where does Julia Cartwright work?

She works at National instruments.

1. What is PREEMT\_RT? Hint: Google it.

A Preemtive kernel that can order events in ways that allow for quicker execution of external events and time based events for real-time applications.

1. What is mixed criticality?

Embedded devices that run both time based tasks and non-time based tasks that need to be able to run together and communicate.

1. How can drivers misbehave?

The drivers are shared between both types of tasks, which can cause issues when they are running in parallel.

1. What is Δ in Figure 1?

The difference between the time the event decides it needs to happen and when it actually does happen.

1. What is Cyclictest[2]?

Takes a timestamp, sleeps and takes another timestamp. Subtract the sleep time, and you have the delta from question 5.

1. What is plotted in Figure 2?

The cyclictest from her laptop, measuring real-time times.

1. What is dispatch latency? Scheduling latency?

Amount of time it takes between when the interrupt occurs and the thread scheduler saying that this event needs to run.

1. What is mainline?

The main execution line for your computer.

1. What is keeping the External event in Figure 3 from starting?

The low priority interrupt is keeping it from executing.

1. Why can the External event in Figure 4 start sooner?

Small shims are inserted to wake up the threads to run the external event sooner.