

Source: 2020PHYS201/KBe20phys250retCapacitorsLab.md

#ret #disorganized #incomplete

1 | Charging Capacitors

1.1 | Voltage over Time

1.2 | Charge Stored

2 | Time Constant with Various Components

Most of the analysis for data collected as a class was done on the “charge rate constant” (t_{RC}) of each circuit, defined as:

$$\frac{t}{RC}$$

t_{RC} is a unitless scalar that represents how quickly it takes to charge any capacitor for a given voltage. Voltage data was not collected during the experiment, so the voltage is assumed to be constant across trials.
