



Figure 8 - figure supplement 1 | Purkinje cell responses to whisker pad stimulation in *Pcp2-Ppp3r1* and *Pcp2-Gria3* mice

A. Example recordings of Purkinje cell activity in a wild-type (WT) (top), a *Pcp2-Ppp3r1* deficient (middle) and a *Pcp2-Gria3* deficient mouse (bottom). The timing of air-puffs to the whisker pad is indicated with light brown lines and that of the complex spikes with black dots above the traces. Compared to their WT littermates, *Pcp2-Ppp3r1* mice had a mildly reduced complex spike rate (**B**), as well as fewer simple spikes (**C**) that on top were fired more regularly (lower CV2; **D**). In contrast, the *Pcp2-Gria3* mice showed firing patterns that were more similar to

their WT littermates. For clarity, the two WT groups are pooled for visualization, but statistics were performed between mutants and their respective control littermates. **E.** Complex spike responses to air-puff stimulation were quite similar in the three groups, although the mutants tended to have lower peak responses (**F**) with normal timing (**G**). **H.** Simple spike responses to air-puff stimulation were similar between WT and *Pcp2-Gria3* mice, but *Pcp2-Ppp3r1* mice showed more inhibition upon stimulation (**I**) with a longer latency (**J**). * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. See also Table S3 and Source Data File.