We used a binomial generalized linear mixed model (EAGLE method from Knowles et al., manuscript in preparation) to test for an association between allelic imbalance and sex.

A. We observed a significant aseQTL with genotype-sex interactions for the regulatory variant at rs4785448 and \textit{NOD2} (\(P\)-value = \(2.5 \times 10^{-3}\)). In this example, the allelic imbalance is measured as \(|a/n - 0.5|\), where \(a\) is the alternative allele read count and \(n\) is the reference allele count for heterozygotes at rs5743291.

B. We also observe a marginally significant aseQTL with genotype-sex interactions for the regulatory variant at rs9846315 and \textit{DNAH1} (\(P\)-value = \(1.0 \times 10^{-1}\)). In this example, allelic imbalance was measured for heterozygotes at rs12163565.