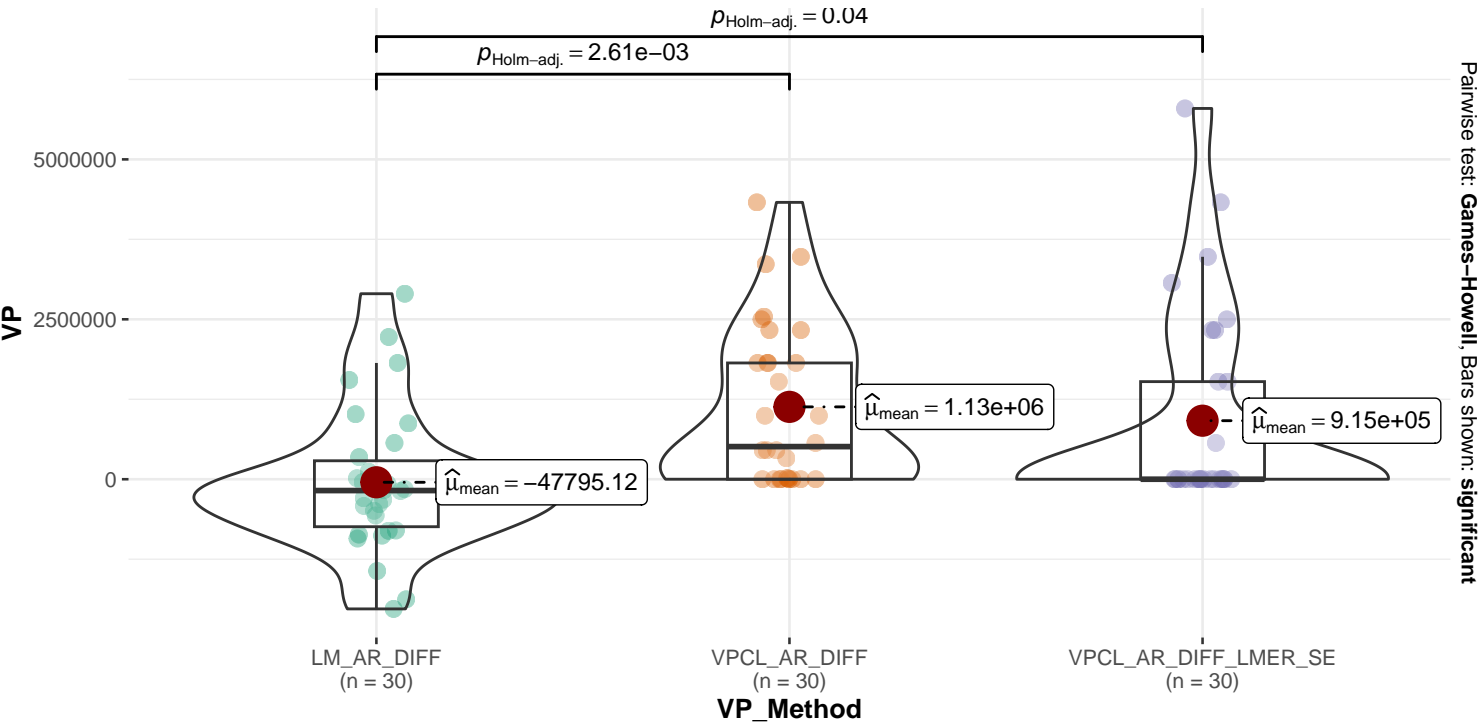# Comparison of LM, VIPCAL and VIPCAL_SE

Population: c_Viruses

Welch test: LM vs VIPCAL vs VIPCAL_SE
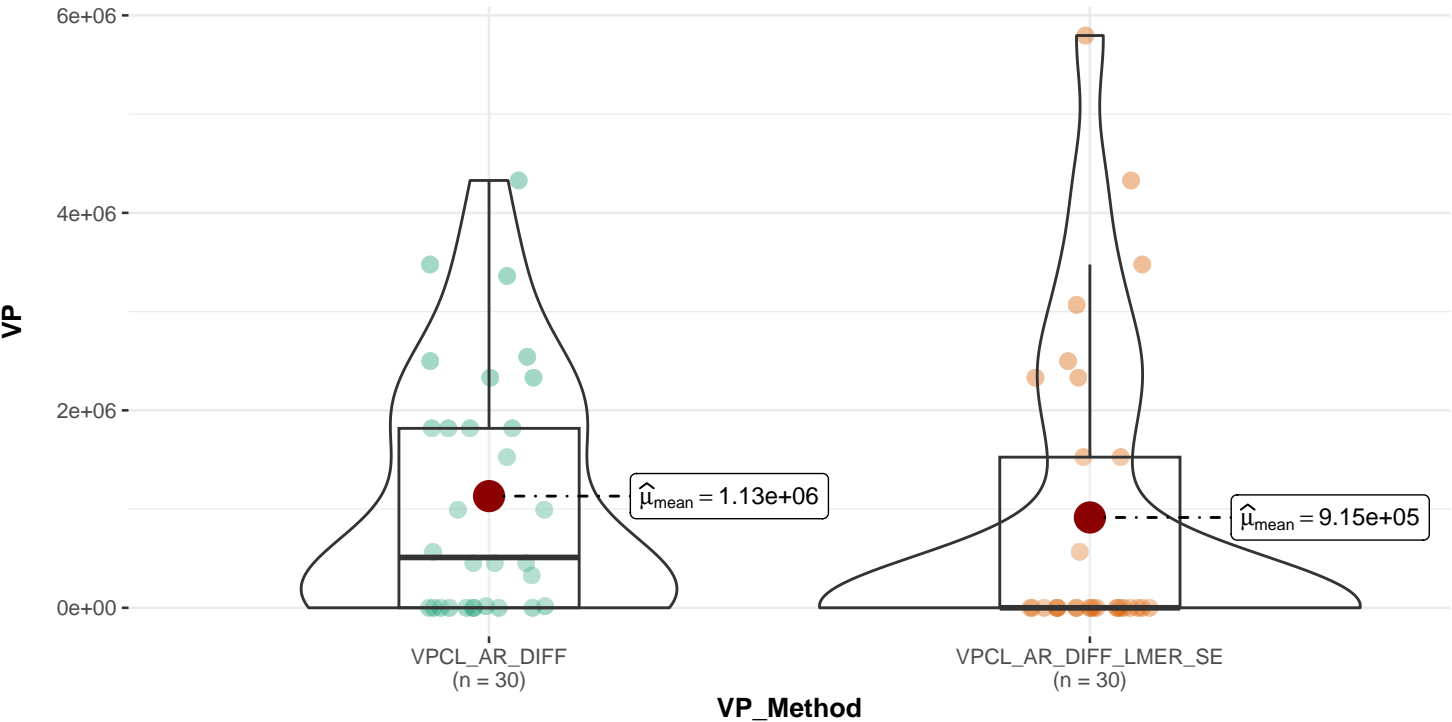
$F_{\text{Welch}}(2, 57) = 8.26$, $p = 7.08\text{e}{-}04$, $\widehat{\omega_p^2} = 0.19$, $\text{CI}_{95\%}$ [0.05, 1.00], $n_{\text{obs}} = 90$

$p_{\text{Holm-adj.}} = 0.04$

$p_{\text{Holm-adj.}} = 2.61\text{e}{-}03$

$\widehat{\mu}_{\text{mean}} = -47795.12$

$\widehat{\mu}_{\text{mean}} = 1.13\text{e}{+}06$

$\widehat{\mu}_{\text{mean}} = 9.15\text{e}{+}05$

LM_AR_DIFF (n = 30)   VPCL_AR_DIFF (n = 30)   VPCL_AR_DIFF_LMER_SE (n = 30)

VP_Method

Pairwise test: **Games–Howell**, Bars shown: **significant**

$\log_e(\text{BF}_{01}) = -2.75$, $\widehat{R^2}^{\text{posterior}}_{\text{Bayesian}} = 0.11$, $\text{CI}^{\text{HDI}}_{95\%}$ [0.00, 0.22], $r^{\text{JZS}}_{\text{Cauchy}} = 0.71$

Welch test: VIPCAL vs VIPCAL_SE

$t_{\text{Welch}}(55.47) = 0.59$, $p = 0.56$, $\widehat{g}_{\text{Hedges}} = 0.15$, $\text{CI}_{95\%}$ [−0.35, 0.65], $n_{\text{obs}} = 60$

$\widehat{\mu}_{\text{mean}} = 1.13\text{e}{+}06$

$\widehat{\mu}_{\text{mean}} = 9.15\text{e}{+}05$

VPCL_AR_DIFF (n = 30)   VPCL_AR_DIFF_LMER_SE (n = 30)

VP_Method

$\log_e(\text{BF}_{01}) = 1.19$, $\widehat{\delta}^{\text{posterior}}_{\text{difference}} = 1.78\text{e}{+}05$, $\text{CI}^{\text{ETI}}_{95\%}$ [−4.56e+05, 8.67e+05], $r^{\text{JZS}}_{\text{Cauchy}} = 0.71$