

Proof of not invariance

$$hV \rightarrow vH$$

$$Ne + En + En$$

$$(Ne + En)(Ne - En) + 2EnNe$$

$$N = ch + sv$$

$$E = -sh + cv$$

$$(ch + sv)(-sh + cv)$$

$$Ne - En$$

↳ looks like
current product

$$(ch + sv)(-sh + cv) - (-sh + cv)(ch + sv)$$

$$-ch + sv + sh - cv + cs + sv$$

$$+ cs + sh + sh + sv - ch - sv - cs - sv$$

$$0 + ch + sv - sh - cv + sh + sv + cv$$

$$2sh + cs + sv + sh + sv + sh + sv + sh + sv$$

$$(c^2 + v^2)(ch + sv) + 2cs(sv + sh)$$