Contrastes no paramétricos (se asume una distribución desconocida de los datos)

Parámetro	Tipo de contraste	Estadístico de contraste	Contraste de hipótesis	p-valor
M	Sign	Si n<30: Tabla A2 $$S = B\left(n, \frac{1}{2}\right)$$ Si n≥30: $$S \approx N\left(\frac{n}{2}, \frac{\sqrt{n}}{2}\right)$$ Hay que realizar la corrección de continuidad $P\{S \leq s\} \approx P\{S \leq s - 0.5\}$	$H_0: M = m_o$ vs $H_A: M > m_o$	$P\{S \geq S_o\}$
			$H_0: M = m_o$ vs $H_A: M < m_o$	$P\{S \leq S_o\}$
			$H_0: M = m_o$ vs $H_A: M \neq m_o$	$2 \cdot min\ (P\{S \leq S_o\},\ P\{S \geq S_o\}$
M	Wilcoxon signed rank	Si n<15: Tabla A8 Si n≥15: $$W \approx N\left(\frac{n(n+1)}{4}, \sqrt{\frac{n(n+1)(2n+1)}{24}}\right)$$	$H_0: M = m_o$ vs $H_A: M > m_o$	$P\{W \geq W_o\}$
			$H_0: M = m_o$ vs $H_A: M < m_o$	$P\{W \leq W_o\}$
			$H_0: M = m_o$ vs $H_A: M \neq m_o$	$2 \cdot min\ (P\{W \leq W_o\},\ P\{W \geq W_o\}$
$M_{(X-Y)}$ Muestras pareadas, con mismo tamaño n	Wilcoxon signed rank paired	Si n<15: Tabla A8 Si n≥15: $$W \approx N\left(\frac{n(n+1)}{4}, \sqrt{\frac{n(n+1)(2n+1)}{24}}\right)$$	$H_0: M_{(X-Y)} = 0$ vs $H_A: M_{(X-Y)} > 0$	$P\{W \geq W_o\}$
			$H_0: M_{(X-Y)} = 0$ vs $H_A: M_{(X-Y)} < 0$	$P\{W \leq W_o\}$
			$H_0: M_{(X-Y)} = 0$ vs $H_A: M_{(X-Y)} \neq 0$	$2 \cdot min\ (P\{W \leq W_o\},\ P\{W \geq W_o\}$
$M_X - M_Y$ Muestras independientes con tamaños n y m	Mann-Whitney-Wilcoxon rank sum	Si n, m <10 → Tabla A9 Si n, m ≥ 10: $$U \approx N\left(\frac{n(n+m+1)}{2}, \sqrt{\frac{nm(n+m+1)}{12}}\right)$$	$H_0: M_X - M_Y = 0$ vs $H_A: M_X - M_Y > 0$	$P\{U \geq U_o\}$
			$H_0: M_X - M_Y = 0$ vs $H_A: M_X - M_Y < 0$	$P\{U \leq U_o\}$
			$H_0: M_X - M_Y = 0$ vs $H_A: M_X - M_Y \neq 0$	$2 \cdot min\ (P\{U \leq U_o\},\ P\{U \geq U_o\}$