Électronique — IV — Électronique numérique : figures

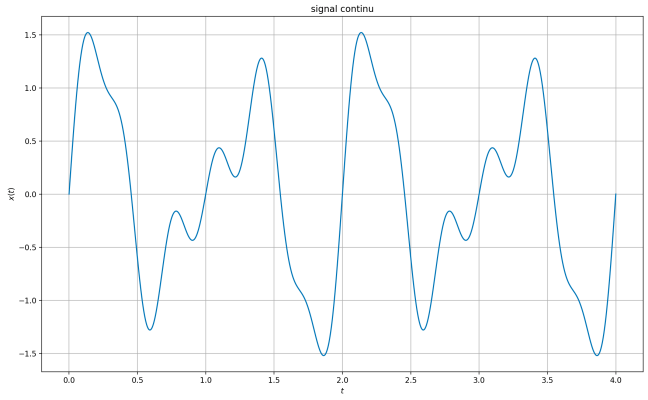

FIGURE 1 — Signal continu de fréquence $f = 0{,}5$ Hz

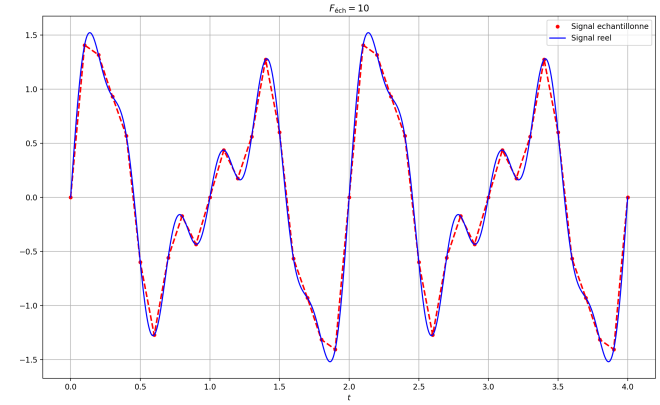

FIGURE 2 — Signal échantillonné à $F_e = 20f$

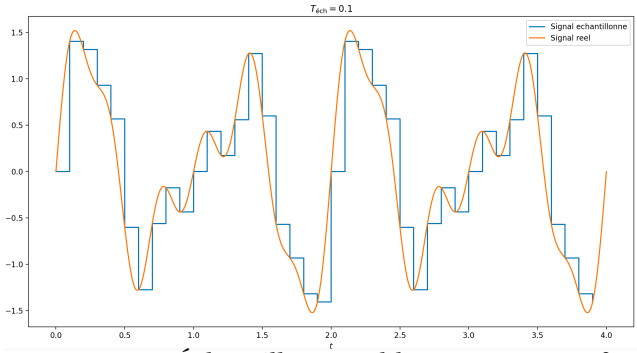

FIGURE 3 — Échantillonneur bloqueur ($F_e = 20f$)

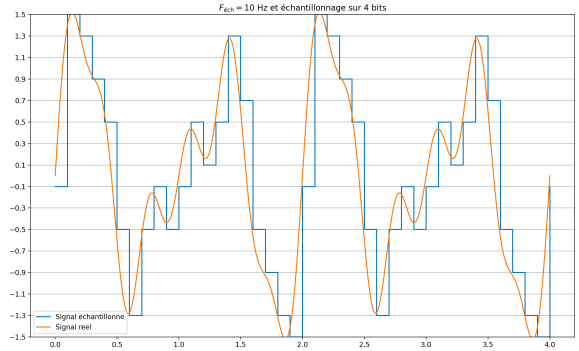

FIGURE 4 — Quantification sur 4 bits ($F_e = 20f$)

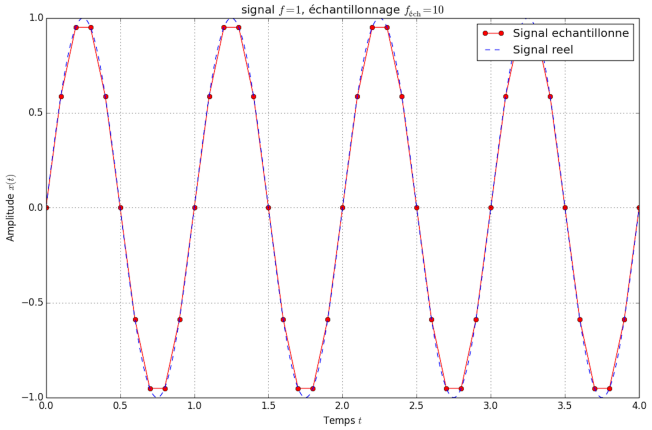

FIGURE 5 — Fréquence d'échantillonnage $F_e = 10f$

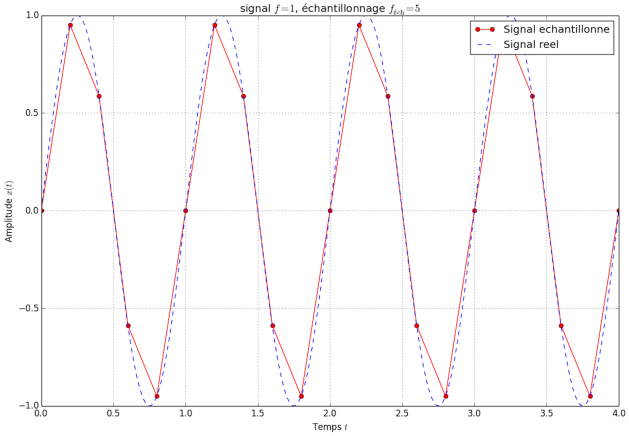

FIGURE 6 — Fréquence d'échantillonnage $F_e = 5f$

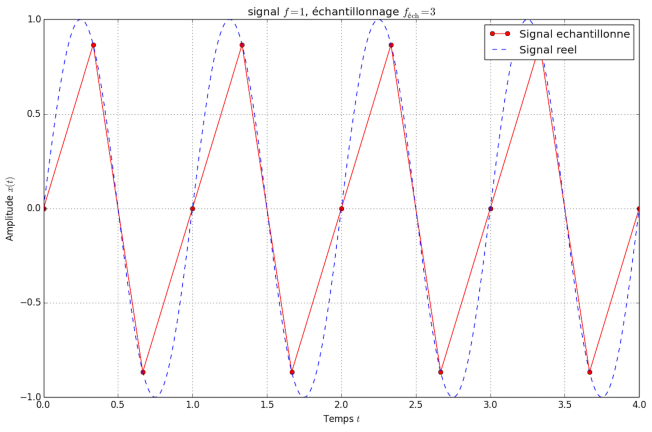

FIGURE 7 — Fréquence d'échantillonnage $F_e = 3f$

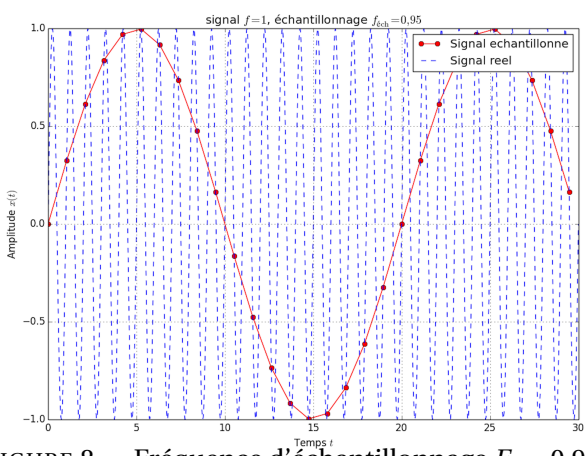

FIGURE 8 — Fréquence d'échantillonnage $F_e = 0{,}9f$

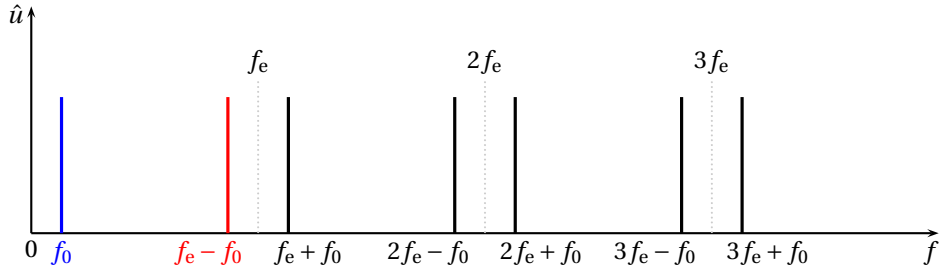

FIGURE 9 — Spectre d'une sinusoïde de fréquence f_0 échantillonnée à la fréquence f_e

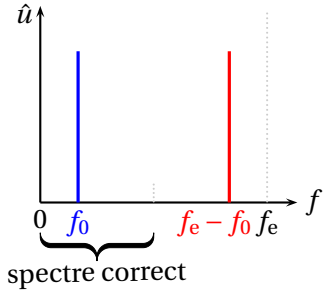

FIGURE 10 — Cas $f_e > 2f_0$

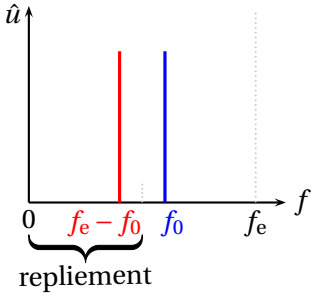

FIGURE 11 — Cas $f_e < 2f_0$

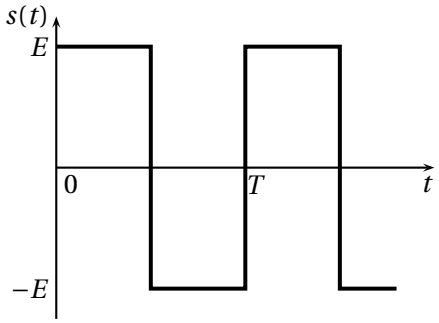

FIGURE 12 — Signal carré symétrique

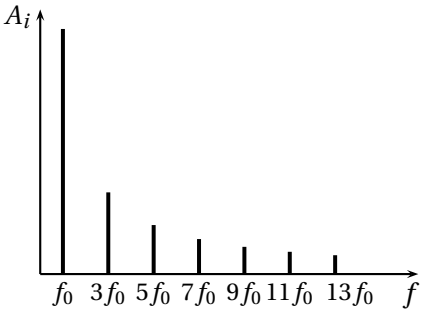

FIGURE 13 — Spectre du signal carré symétrique

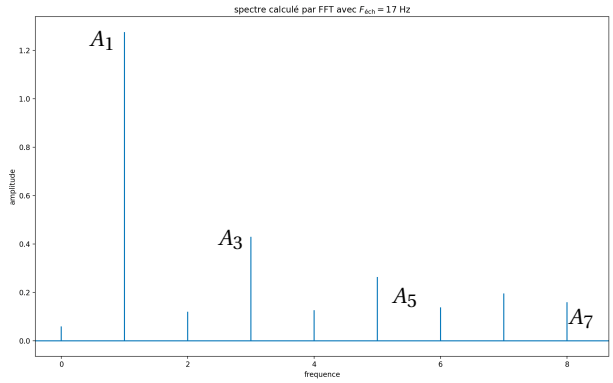

FIGURE 14 — Signal carré $f_0 = 1$ Hz échantillonné à $F_e = 17$ Hz

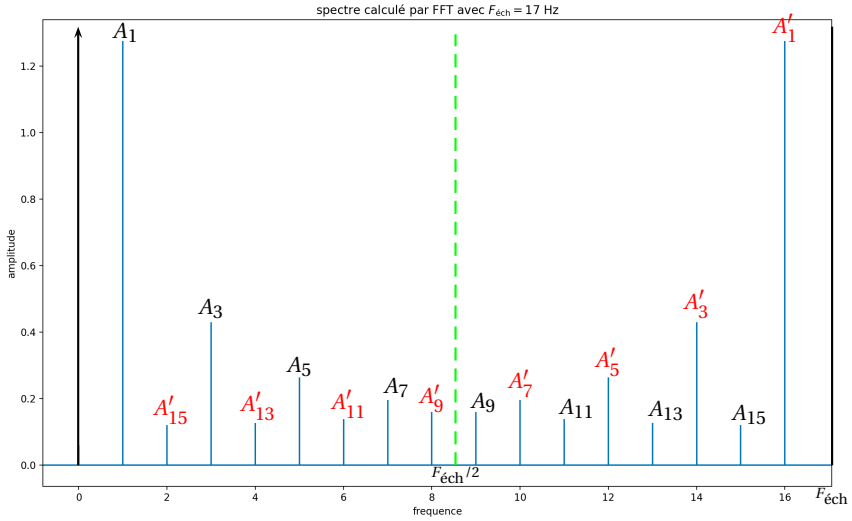

FIGURE 15 — Signal carré $f_0 = 1$ Hz échantillonné à $F_e = 17$ Hz, détail du repliement de spectre

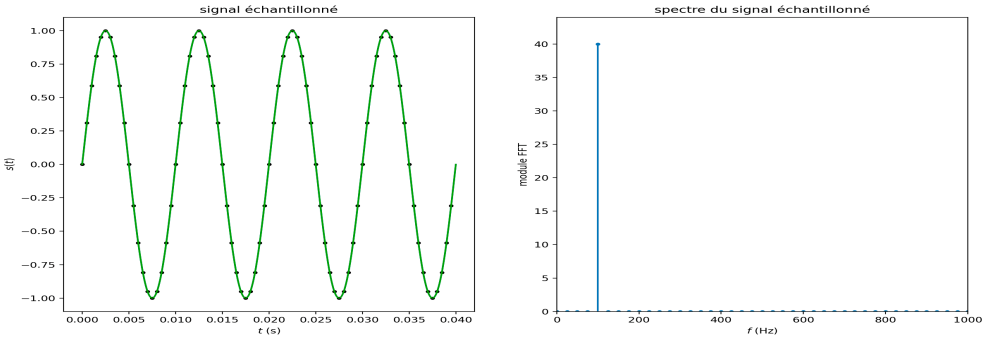

FIGURE 16 — Signal sinusoïdal de période T ; durée échantillon $T_{tot} = 4T$

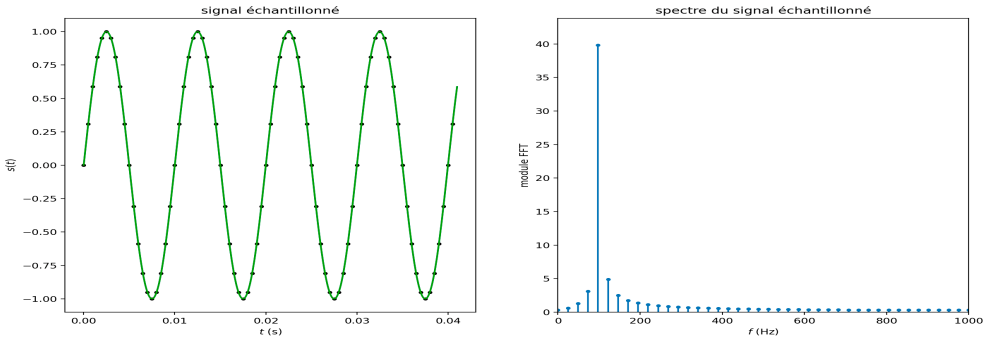

FIGURE 17 — Signal sinusoïdal de période T ; durée échantillon $T_{tot} = 4{,}1T$

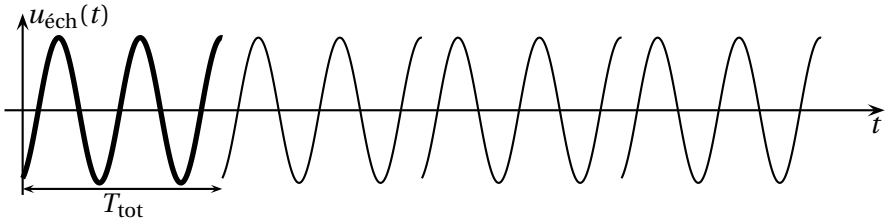

FIGURE 18 — Construction d'un signal périodique par concaténation de l'échantillon

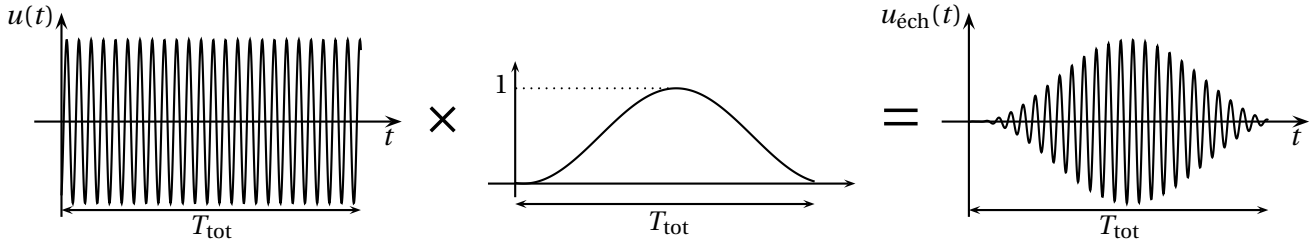

FIGURE 19 — Principe de l'utilisation d'une fenêtre

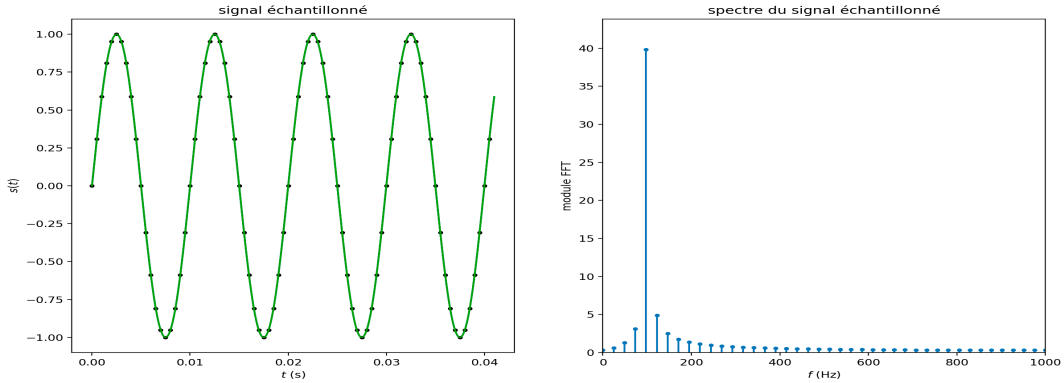

FIGURE 20 — Spectre calculé par FFT sans fenêtre

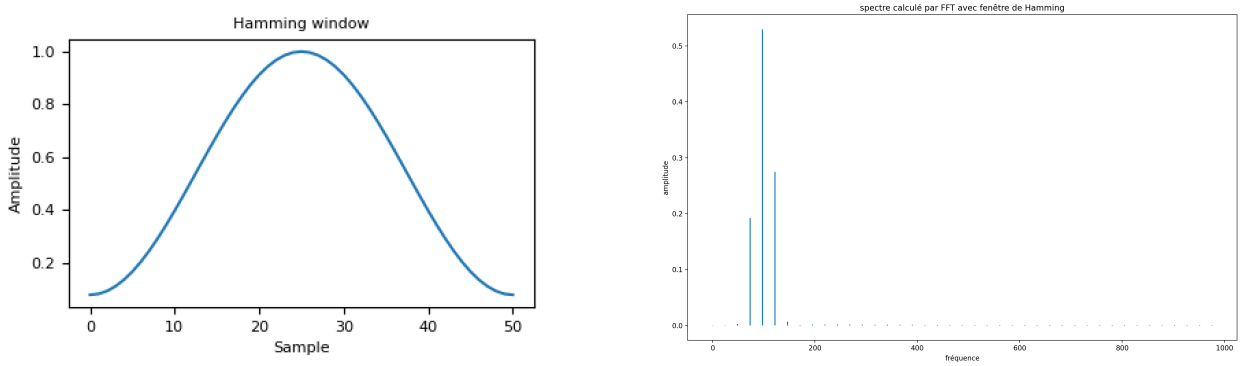

FIGURE 21 — Spectre calculé par FFT avec une fenêtre de Hamming

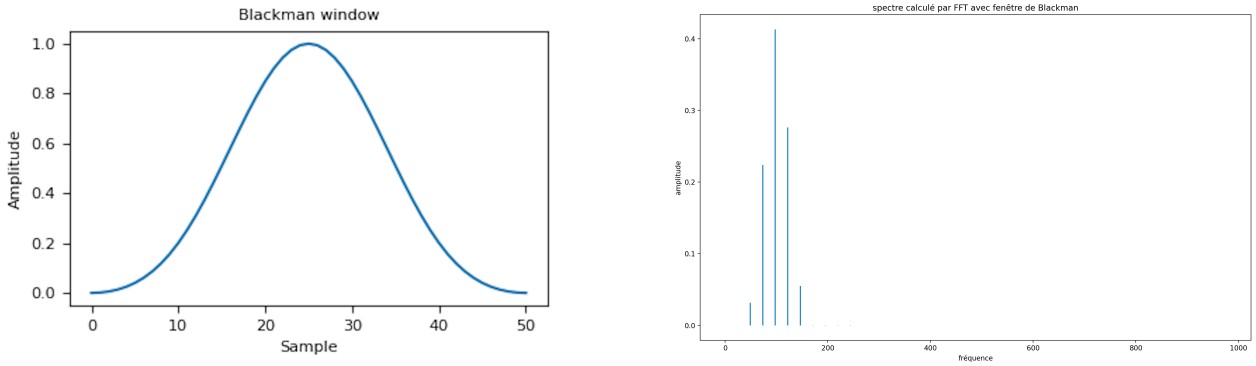

FIGURE 22 — Spectre calculé par FFT avec une fenêtre de Blackmann