3D Sensors – Pulse Modulation

Exercise 1.

20 P.

Consider the following two double short time integration schemes in Figs. 1 and 2. Formulate the **measurement expressions** x_i for Variant A and B and then the *distance expression(s)* with respect to these measurements. Variant A and B are equally weighted in terms of points (10+10). Here, ToF is the Time-of-Flight, T_p is the pulse time, B is the background measurement (offset) and A is the amplitude.
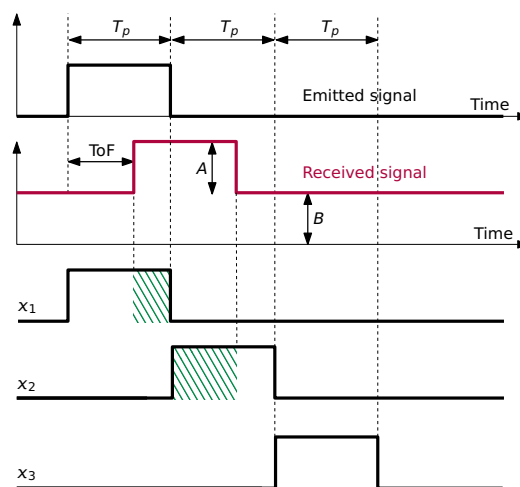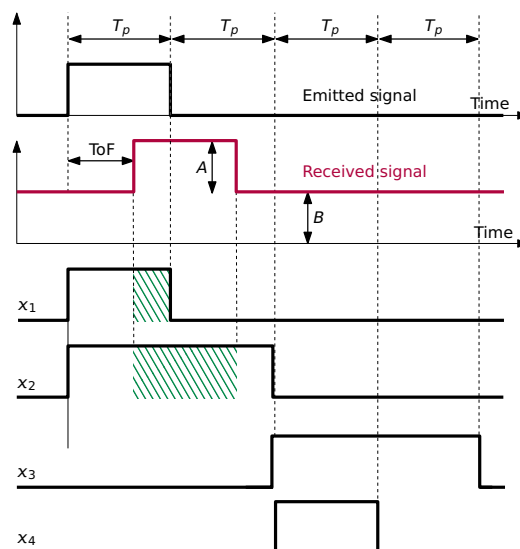

Figure 1: Variant A

Figure 2: Variant B