Some elementary properties of Landau notations. Let  $(a_n)_n$  and  $(b_n)_n$ , as well as  $(u_n)_n$  and  $(v_n)_n$ , be sequences of complex numbers. Then:

$$(2)$$
  
 $(3)$ 

(4)

$$\begin{split} a_n &= O(1) \ \text{ and } \ u_n = O(1) \Rightarrow a_n + \lambda u_n = O(1) \\ a_n &= O(1) \ \text{ and } \ u_n = O(1) \Rightarrow a_n u_n = O(1) \\ a_n &= o(u_n) \ \text{ et } \ b_n = O(v_n) \Rightarrow a_n b_n = o(u_n v_n) \end{split}$$

Some elementary properties of Landau notations. Let  $(a_n)_n$  and  $(b_n)_n$ , as well as  $(u_n)_n$  and  $(v_n)_n$ , be sequences of complex numbers. Then:

$$\begin{aligned} a_n &= O(1) \quad \text{and} \quad u_n = O(1) \Rightarrow a_n + \lambda u_n = O(\mathbf{f}) \\ a_n &= O(1) \quad \text{and} \quad u_n = O(1) \Rightarrow a_n u_n = O(1) \quad (7) \\ a_n &= o(u_n) \quad \text{et} \quad b_n = O(v_n) \Rightarrow a_n b_n = o(u_n v_n \mathbf{f}) \end{aligned}$$