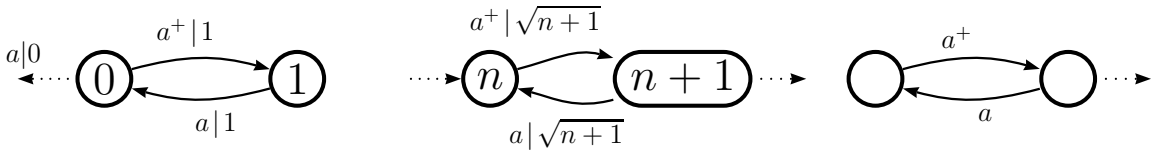

Figure 1: espace de Fock classique

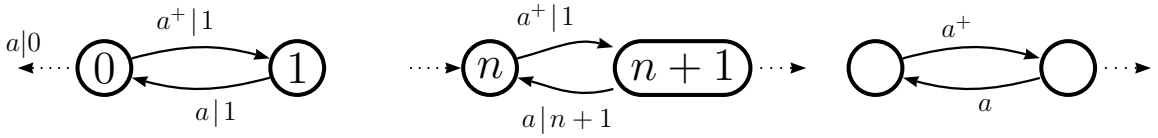

Figure 2: Bargman-Fock representation (flat).
L'état "n" est z^n et $a^+ \to z$; $a \to D = \frac{d}{dz}$

$$W_k^{(i)} = \left\{ w \in \{a, a^+\}^* \middle| \pi_e(w) = k \text{ and } |w| = i \right\} \tag{1}$$
with $k = m - n$ and $\pi_e(w) = |w|_{a^+} - |w|_a$.

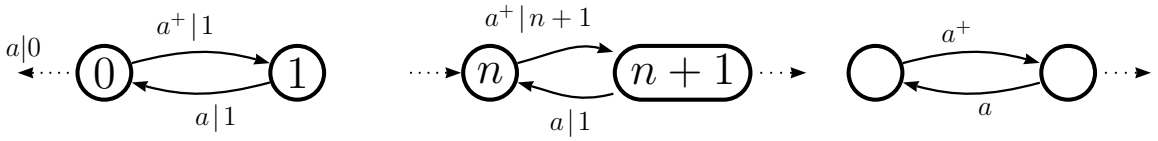

Figure 3: Représentation de Bargman-Fock avec états normalisés.
L'tat "n" is $\frac{z^n}{n!}$ and $a^+ \to z$; $a \to D = \frac{d}{dz}$

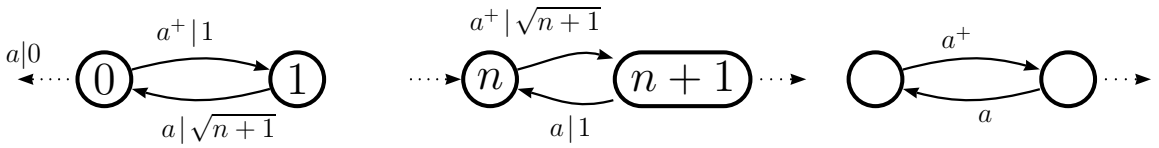

Figure 4: Représentation de Bargman-Fock avec états normalisés.
L'tat "n" is $\frac{z^n}{n!}$ and $a^+ \to z\ ;\ a \to D = \frac{d}{dz}$

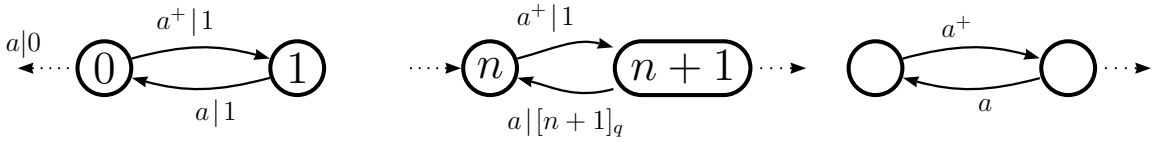

Figure 5: Bargman-Fock representation.
State "n" is z^n and $a^+ \to z\ ;\ a \to D_q$ with $D_q(f) = \frac{f(qz)-f(z)}{z(q-1)}$

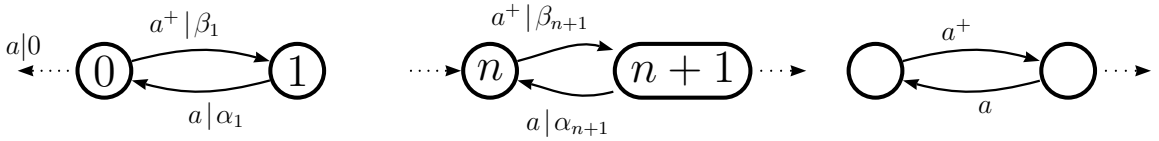

Figure 6: General setting: in order that the Fock space be bounded below, one must have $\alpha_0 = 0$.

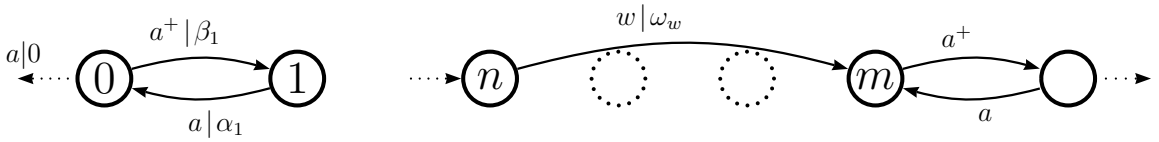

Figure 7: The transfer packet problem

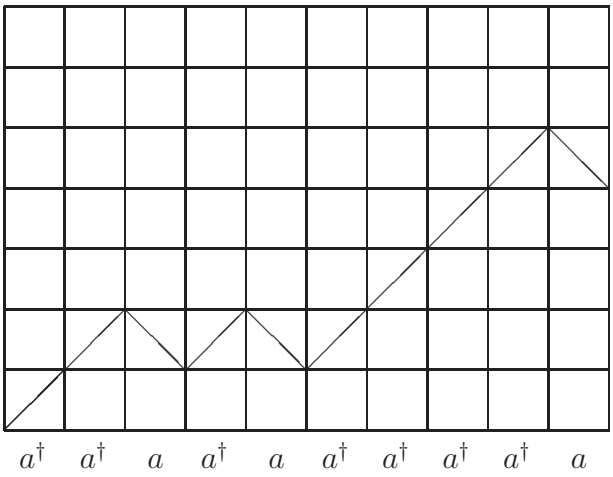

Figure 8: A word which transfers from n to $n+4$.

$$e_n.W^{(i)}_{m-n} = \omega^{(i)}_{n\to m}\ e_m\ ;\ T_{n\to n+k} := \sum_{i\geq 0} t^i \omega^{(i)}_{n\to n+k} \tag{2}$$

$$\left(D_+ + D_-^{(n)}\right)^* \tag{3}$$

$$a^+ (D_+)^* \tag{4}$$

$$D_+ = a^+\left(D_+\right)^* a\ ;\ D_-^{(n)} = a\left(D_-^{(n-1)}\right)^* a^+\ ;\ D_-^{(0)} = \emptyset \tag{5}$$

$$T_{n\to n}[t] = \frac{1}{1 - \frac{t^2\alpha_{n+1}\beta_{n+1}}{1-\frac{t^2\alpha_{n+2}\beta_{n+2}}{1-\cdots}} - \frac{t^2\alpha_n\beta_n}{1-\frac{t^2\alpha_{n-1}\beta_{n-1}}{1-\cdots}}} \tag{6}$$

$$T^{+}_{n\to n}[t] = \frac{1}{1 - \frac{t^2\alpha_{n+1}\beta_{n+1}}{1-\frac{t^2\alpha_{n+2}\beta_{n+2}}{1-\cdots}}} \tag{7}$$