$$\hat{f}(\xi) = \int\limits_{-\infty}^{+\infty} f(x)\ e^{-2\pi i x \xi}\, dx \tag{1}$$

$$f(x) = \sum_{n=-\infty}^{+\infty} c_n\ e^{\frac{2\pi i n}{T} x} = \sum_{n=-\infty}^{+\infty} \hat{f}(\xi_n)\ e^{2\pi i \xi_n x} \Delta\xi, \tag{2}$$

$$\frac{2\pi J_1\left(\sqrt{\nu_x^2 + \nu_y^2}\right)}{\sqrt{\nu_x^2 + \nu_y^2}} \tag{3}$$

$$2\Pi_2 \left(\prod_{p|n; p \geq 3} \frac{p-1}{p-2} \right) \int\limits_2^n \frac{dx}{\ln^2 x} \approx 2\Pi_2 \left(\prod_{p|n; p \geq 3} \frac{p-1}{p-2} \right) \frac{n}{\ln^2 n} \tag{4}$$

$$\begin{gathered} \forall t_0, t_1, t_2 \in T \mid t_0 < t_1 < t_2 \quad \forall z\left(t_0\right) \in Z \\ \forall \left(\tau, x_L\right)\Big|_{\tau \in T} \in \left\{ \left(\tau, x_L\right)\Big|_{\tau \in T} \right\} \\ H\left(t_2, t_0, z\left(t_0\right), \left(\tau, x_L\right)\Big|_{\tau \in (t_0, t_2]}\right) = H\left(t_2, t_1, z\left(t_1\right), \left(\tau, x_L\right)\Big|_{\tau \in (t_1, t_2]}\right) \end{gathered} \tag{5}$$

$$\begin{gathered} P\left(\tau_1 > t\right) = P\left(t_1 > t\right) = P\left(\eta\left(t\right) - \eta\left(0\right) = 0\right) = \frac{\left(\lambda\, t\right)^0\ e^{-\lambda\, t}}{0!} = e^{-\lambda\, t} \\ F\left(t\right) = P\left(\tau_1 < t\right) = \begin{cases} 1 - e^{-\lambda\, t} & t \geq 0 \\ 0 & t < 0 \end{cases} \end{gathered} \tag{6}$$

$$\begin{gathered} P\left(0\right) = \begin{pmatrix} p_{11} & p_{12} \\ p_{21} & p_{22} \end{pmatrix} \quad \Rightarrow \\ P\left(1\right) = \left(P\left(0\right)\right)^2 = \begin{pmatrix} p_{11} & p_{12} \\ p_{21} & p_{22} \end{pmatrix}^2 = \begin{pmatrix} p_{11}^2 + p_{12}\, p_{21} & p_{11}\, p_{12} + p_{12}\, p_{22} \\ p_{21}\, p_{11} + p_{21}\, p_{22} & p_{12}\, p_{21} + p_{22}^2 \end{pmatrix} \end{gathered} \tag{7}$$

$$\begin{gathered} F^{(\tau)}\left(t\right) = P\left(\tau - T < t \mid \tau > T\right) = \frac{P\left(\left(\tau - T < t\right)\ \left(\tau > T\right)\right)}{P\left(\tau > T\right)} = \\ = \frac{P\left(T < \tau < T + t\right)}{P\left(\tau > T\right)} = \frac{F\left(T + t\right) - F\left(T\right)}{1 - F\left(T\right)} = \\ = \frac{e^{-\lambda\, T} - e^{-\lambda\left(T + t\right)}}{e^{-\lambda\, T}} = 1 - e^{-\lambda\, t} = P\left(\tau < t\right) = F\left(t\right) \end{gathered} \tag{8}$$

$$\begin{gathered} \sup_{t \in T_0(\theta, \omega)} t \leq \tau_0\left(\theta, \omega\right) \\ \inf_{t \in T_0(\theta, \omega)} t \geq 0 \end{gathered} \tag{9}$$

$$
\begin{cases}
\dfrac{\mathrm{d}p_0}{\mathrm{d}t} &= & -\lambda\, p_0 & & +\mu\, p_1 \\
\cdots\cdots & & & & \\
\dfrac{\mathrm{d}p_k}{\mathrm{d}t} &= \lambda\, p_{k-1} & +(\lambda + k\,\mu)\; p_k & +(k+1)\;\mu\, p_{k+1} & \\
& & & \forall k \in [1, n-1]_{\mathbb{N}} & \\
\cdots\cdots & & & & \\
\dfrac{\mathrm{d}p_n}{\mathrm{d}t} &= \lambda\, p_{n-1} & -n\,\mu\, p_n & & \\
p_0\,(0) = 1, & & p_1\,(0) = p_2\,(0) = \ldots = p_n\,(0) = 0 & &
\end{cases}
\tag{10}
$$