

Statistiques pour données de comptage

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Données de comptage

$$\mathbf{Y} = \begin{matrix} & \xrightarrow{\text{variables}} & \\ \begin{pmatrix} 12 & 0 & \dots & 0 & 9 \\ 2 & 0 & \dots & 0 & 0 \\ \vdots & & & & \vdots \\ 341 & 5 & \dots & 1 & 0 \end{pmatrix} & \begin{matrix} \downarrow \\ \text{individus} \end{matrix} \end{matrix}$$

$$\left\{ Y_i \sim \mathcal{P}(\exp(Z_i)) \right.$$

Covariance

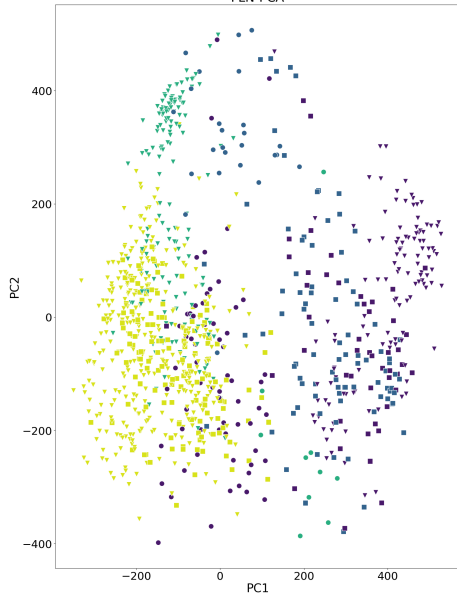
$$Z_i \sim \mathcal{N}(\mu, \Sigma)$$

$$\left. \vphantom{\begin{matrix} Z_i \sim \mathcal{N}(\mu, \Sigma) \\ Y_i \sim \mathcal{P}(\exp(Z_i)) \end{matrix}} \right\} Y_i \sim \mathcal{P}(\exp(Z_i))$$

Covariance	$Z_i \sim \mathcal{N}(\mu, \Sigma)$	}	$Y_i \sim \mathcal{P}(\exp(Z_i))$
Séries temporelles	$Z_i \sim \mathcal{N}(AZ_{i-1}, \Sigma)$		

Covariance	$Z_i \sim \mathcal{N}(\mu, \Sigma)$	}	$Y_i \sim \mathcal{P}(\exp(Z_i))$
Séries temporelles	$Z_i \sim \mathcal{N}(AZ_{i-1}, \Sigma)$		
Clustering	$Z_i \sim \sum_{k=1}^K \alpha_k \mathcal{N}(\mu_k, \Sigma_k)$		

PLN-PCA



Standard PCA

