(1) Chapman-Kolmogorov equation imposes restrictions on permissible functions $P(x,t|x_0)$ but does not suggest a classification of processes.

(2) Particular solutions that are specified by
   - $A(x,t)$ describing drift,
   - $B(x,t)$ describing diffusion,
   - $W(x|x';t)$ describing jumps.

(3) Jump processes exclusively.

(4) Processes with continuous sample paths, satisfying Lindeberg criterion (drift and diffusion, no jumps).

(5) Master equation with any $W(x|x';t)$ specifies a Markov process. Natural starting point for processes with discrete stochastic variables.

(6) Transition rates $W(x|x';t)$ of master equation approximated by two jump moments provided they exist. Approximation captures drift and diffusion parts (on some scale).

(7) Drift and diffusion determine mean $\langle \langle x \rangle \rangle$ and variance $\langle \langle x^2 \rangle \rangle$ via equations of motion for jump moments.

(8) Deterministic process have no diffusive part: $B(x,t) = 0$.

(9) Purely diffusive processes have no drift: $A(x,t) = 0$. 