modification of a stochastic process

Canonical name	ModificationOfAStochasticProcess
Date of creation	2013-03-22 16:09:44
Last modified on	2013-03-22 16:09:44
Owner	georgiosl (7242)
Last modified by	georgiosl (7242)
Numerical id	9
Author	georgiosl (7242)
Entry type	Definition
Classification	msc 60G07
Classification	msc 60G05
Related topic	DistributionsOfAStochasticProcess
Defines	modification

Let $\{X_t\}_{t\geq 0}$, $\{Y_t\}_{t\geq 0}$ be stochastic processes on $(\Omega, \mathcal{F}, P)$. $\{X_t\}_{t\geq 0}$ is a *modification* of $\{Y_t\}_{t\geq 0}$ if

$$P[\{\omega : X_t(\omega) = Y_t(\omega)\}] = 1$$

for all $t \in [0, \infty)$.

References

[1] Bernt Øksendal. *, 5th ed Springer 1998.*