Aalto University

# Stationarity of Stochastic Processes

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# Preliminaries: Random variables

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- For a rigorous treatment of probability theory, see (Kallenberg 1997).

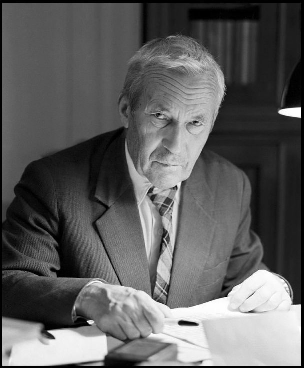

**Figure:** Andrey Kolmogorov (1903 - 1987)

# Stochastic Process and Time Series?
# (Brockwell and Davis 2009)

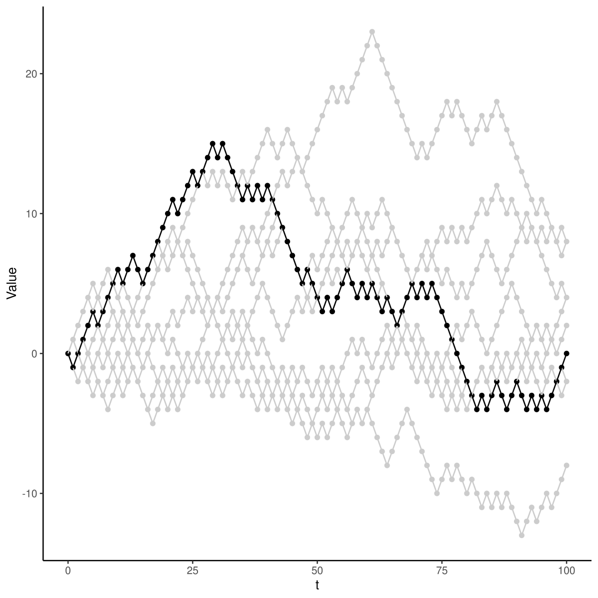


**Figure:** 10 realizations of the simple random walk. Here $t \in T = \{0, 1, \ldots, 100\}$.

# (Weak) Stationarity

## References

Brockwell, Peter J. and Richard A. Davis (2009). *Time Series: Theory and Methods*. Springer Science & Business Media.

Kallenberg, Olav (1997). *Foundations of modern probability*. Vol. 2. Springer.