

MODELING SEASONAL TIME SERIES

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Abstract. The paper studies the seasonal time series as elements of a (finite dimensional) Hilbert space and proves that it is always better to consider a trend together with a seasonal component even the time series seems not to have one. We give a formula that determines the seasonal component in function of the considered trend that permits to compare the different kind of trends.

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References

- [1] G.E.P. Box, G.C. Jenkins and G.M. Reinsel, *Time Series Analysis. Forecasting and Control*. Third edition, Prentice Hall, Inc., Englewood Cliffs, NJ, 1994. [MR1312604](#)(95m:62191). [Zbl 0858.62072](#).
- [2] P.J. Brockwell and R.A. Davis, *Introduction to time series and forecasting*. Second edition, Springer Texts in Statistics, Springer-Verlag, New York, 2002. [MR1894099](#)(2002m:62002). [Zbl 0994.62085](#).
- [3] C. Chatfield, *The Analysis of Time Series. An Introduction*. Fifth edition, Texts in Statistical Science Series. Chapman & Hall, London, 1996. [MR1410749](#)(97e:62117). [Zbl 0870.62068](#).
- [4] C. Gourieux et A. Monfort, *Séries Temporelles et modèles Dynamiques*, Economica, Paris, 1990.

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