Replication of Figure 2: Time-varying interspecific interactions in a subset of the Maizuru fish community

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Ecological theory suggests that large-scale patterns such as community stability can be influenced by changes in interspecific interactions that arise from the behavioural and/or physiological responses of individual species varying over time. Although this theory has experimental support, evidence from natural ecosystems is lacking. Here, using tools for analysing nonlinear time series and a 12-year-long dataset of fortnightly collected observations on a natural marine fish community in Maizuru Bay, Japan, the show that short-term changes in interaction networks influence overall community dynamics. Figure 2 shows that interactions in the Maizuru Bay fish community are not static; this contradicts a common assumption of ecological research. Instead, they change over time, as expected for a system with nonlinear dynamics. Of the 14 interspecific interactions, on average 8 are negative and 6 are positive. …

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Keywords: Interaction networks; seasonal patterns; keyword 3

Highlights: These are the highlights.

# 1 Introduction

Here is a citation (Marwick, 2017)

# 2 Background

# 3 Methods

# 4 Results

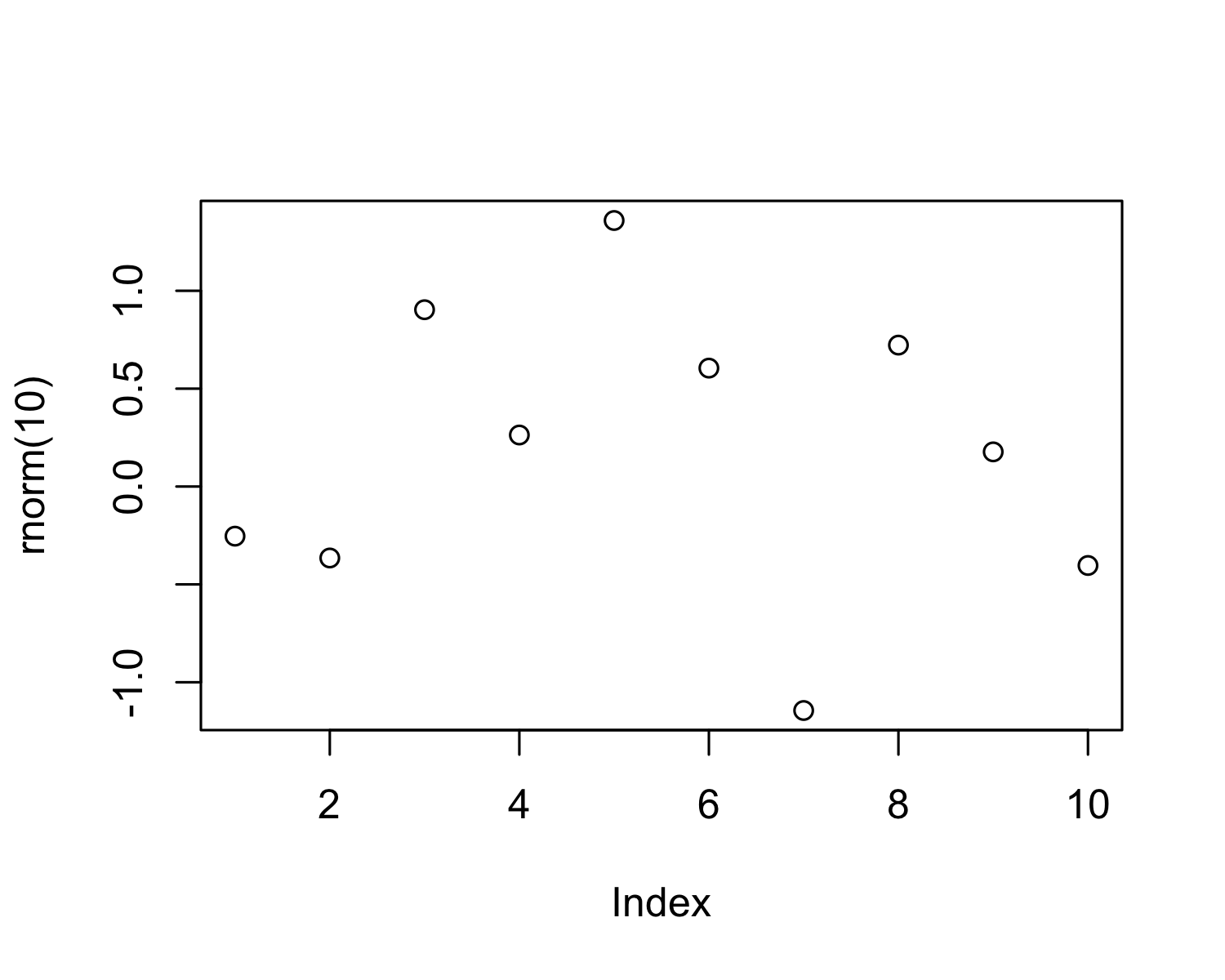


Figure 4.1: A plot of random numbers

Figure 4.1 shows how we can have a caption and cross-reference for a plot

Here is an example of inline code 3.14 in the middle of a sentence.

# 5 Discussion

# 6 Conclusion

# 7 Acknowledgements

# 8 References

Marwick, B., 2017. Computational reproducibility in archaeological research: Basic principles and a case study of their implementation. Journal of Archaeological Method and Theory 24, 424–450. <https://doi.org/10.1007/s10816-015-9272-9>

### 8.0.1 Colophon

This report was generated on 2021-12-09 10:12:21 using the following computational environment and dependencies:

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#> version R version 4.0.3 (2020-10-10)  
#> os macOS Catalina 10.15.7  
#> system x86\_64, darwin17.0  
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#>   
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#> usethis 2.1.3 2021-10-27 [1] CRAN (R 4.0.2)  
#> withr 2.4.2 2021-04-18 [1] CRAN (R 4.0.3)  
#> xfun 0.28 2021-11-04 [1] CRAN (R 4.0.2)  
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The current Git commit details are:

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#> Remote: main @ origin (https://github.com/yehchihfu/ushio2018.git)  
#> Head: [369d589] 2021-12-09: Remove DS\_Store conflicts