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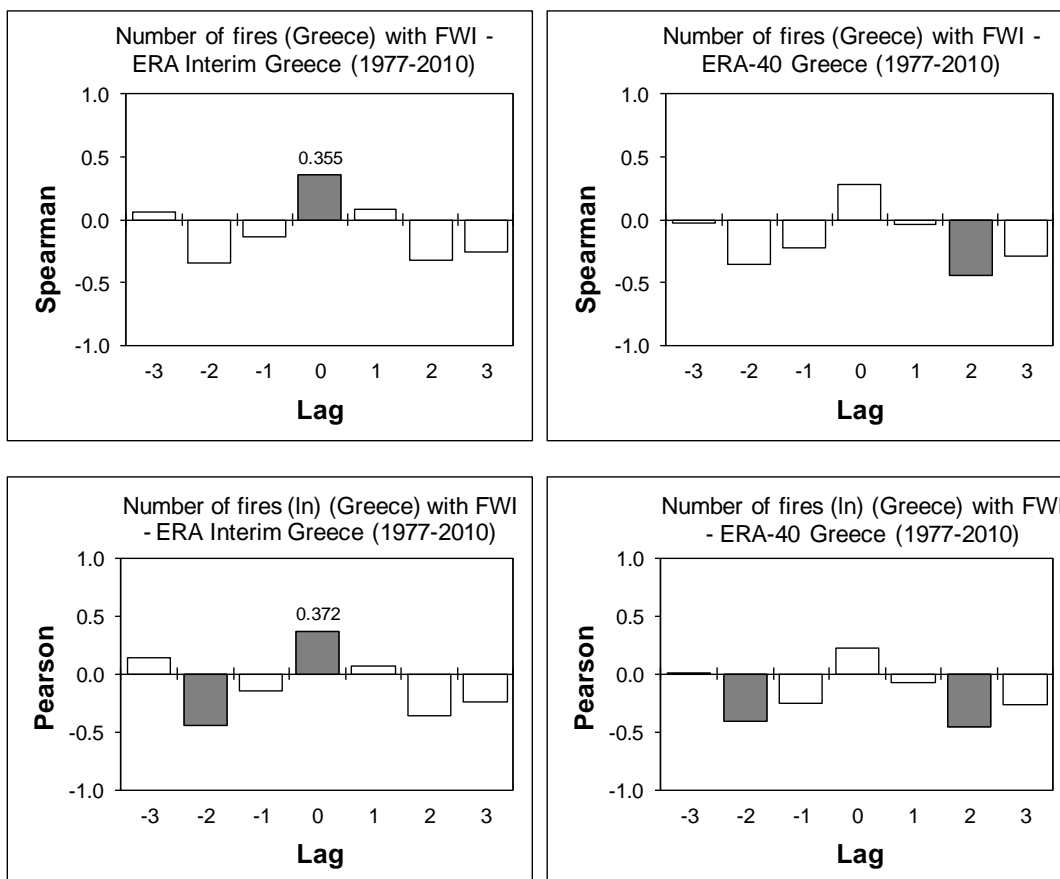
Supplement of

Temporal variations and change in forest fire danger in Europe for 1960–2012

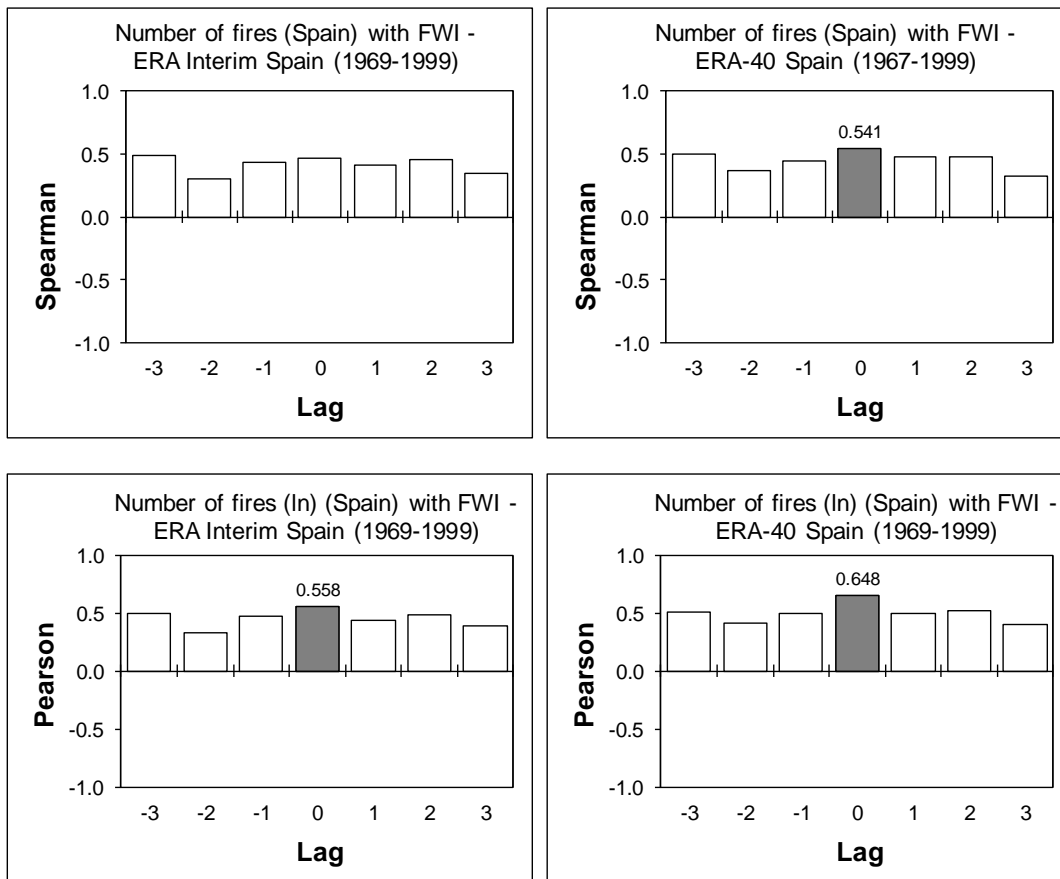
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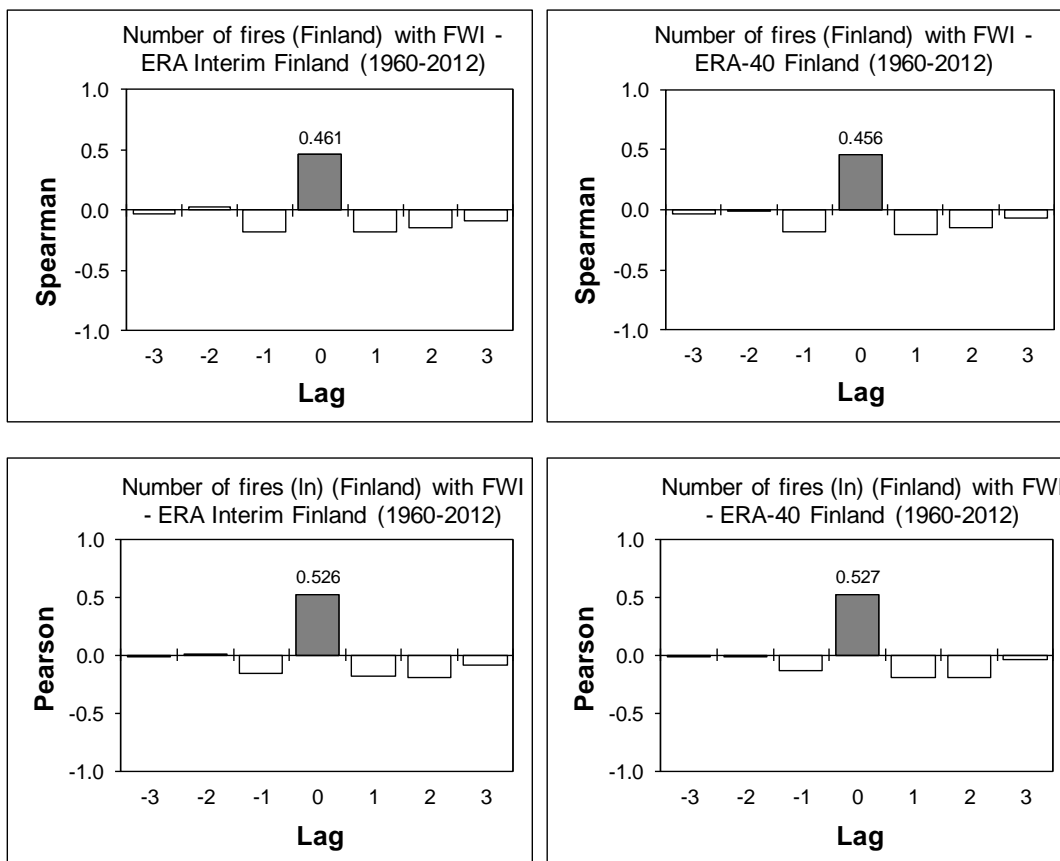
To widen the research on the relationship between FWI and the occurrence of fires we calculated the cross correlations between the number of fires and mean FWI for the three studied countries Greece, Spain and Finland. According to the results the cross-correlations (Supplementary Figures 1, 2 and 3). in case of all studied three countries are lower than in case when the correlation was calculated between FWI and burned area This can be explained by lower reliability of number of fires data compared with the burned area data. A more robust analysis could be achieved by limiting the cross correlation calculation to fires exceeding a certain threshold like e.g. 100 ha, however reliable statistics on fire sizes was not available for Finland and for Greece for the whole study period and that is why we had to use the total number of fires in our analyses.



Supplementary Figure 1. Cross-correlation graphs between number of fires (original and ln transformed) at national scale in Greece and FWI values estimated from ERA-40 and ERA Interim Greek data for the period 1977-2010 (gray columns indicate significant values at 95% confidence level).



Supplementary Figure 2. Cross-correlation graphs between number of fires (original and ln transformed) at national scale in Spain and FWI values estimated from ERA-40 and ERA Interim Spain data for the period 1969-1999 (gray columns indicate significant values at 95% confidence level).



Supplementary Figure 3. Cross-correlation graphs between number of fires (original and ln transformed) at national scale in Finland and FWI values estimated from ERA-40 and ERA Interim Finish data for the period 1960-2012 (gray columns indicate significant values at 95% confidence level).