SUPPLEMENTAL INFORMATION

Verification of the ECMWF H500 forecasts
as these are represented by spherical harmonics over the Northern Hemisphere
(period of the verification) March – August

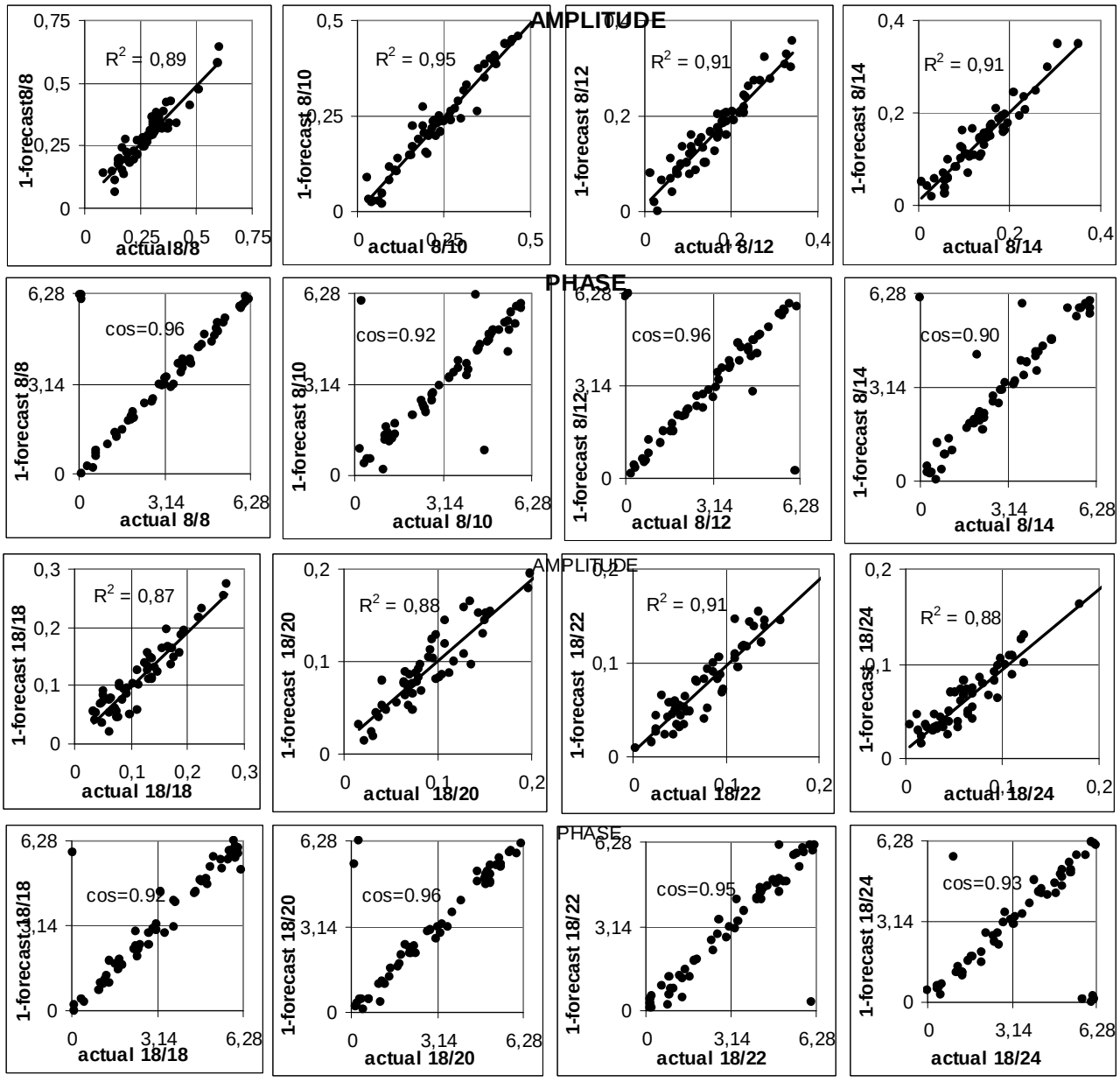

Fig. 1
Relationships between actual and forecasted (1-day lead time) amplitudes and phases of the synoptic observable (*m=8, n=8, 10, 12, 14*) and the synoptic unobservable (*m=18, n=18, 20, 22, 24*) waves in the H500-fields of the Northern Hemisphere. Squared correlations between actual and 6-forecasted amplitudes as well as mean values of cosine of the actual and 1-forecasted phase differences are indicated as quantitative measures of the 6-day forecast skill. The respective relationships between the ultra-long waves do not shown because their skill is very similar to the skill of the waves shown in this figure.

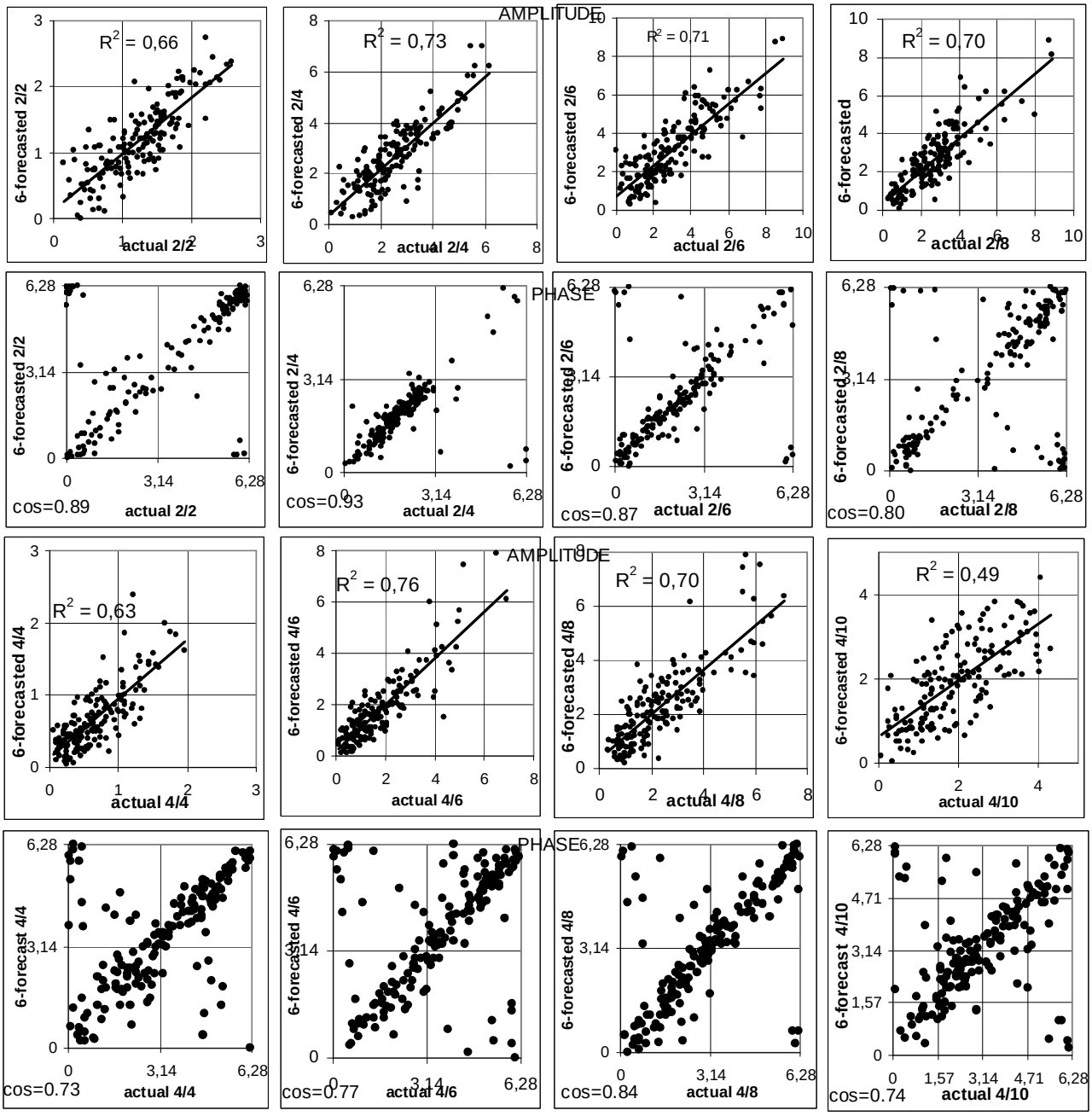

Fig. 2

Relationships between actual and forecasted (6-day lead time) amplitudes and phases of the ultra-long observable (*m=2, n=2, 4, 6, 8;* and *m=4, n=4, 6, 8, 10*) waves in the H500-fields of the Northern Hemisphere. Squared correlations between actual and 6-forecasted amplitudes as well as mean values of cosine of the actual and 6-forecasted phase differences are indicated as quantitative measures of the 6-day forecast skill.

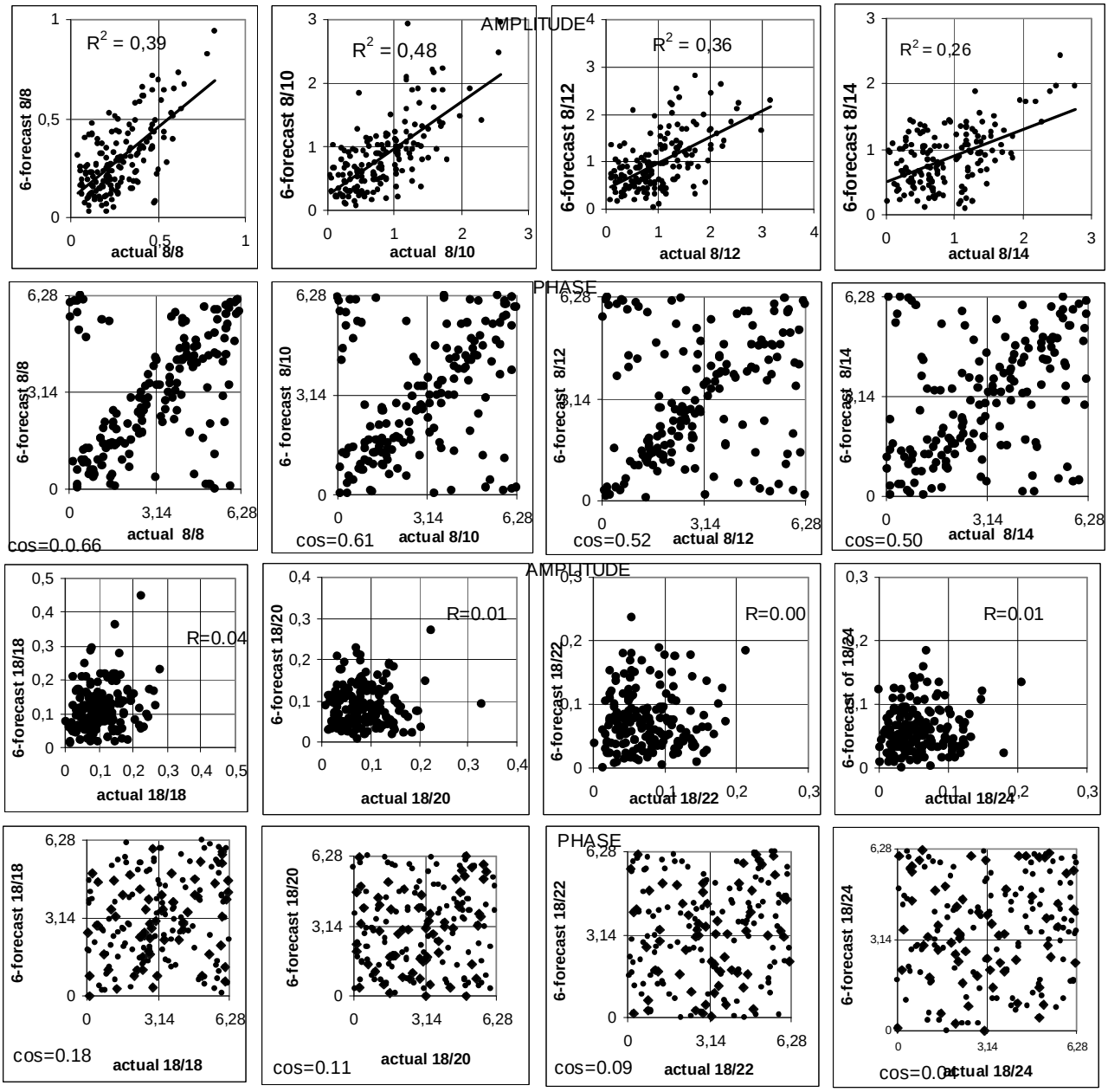

Fig. 3

Relationships between actual and forecasted (6-day lead time) amplitudes and phases of the synoptic observable (*m=8, n=8, 10, 12, 14*) and the synoptic unobservable (*m=18, n=18, 20, 22, 24*) waves in the H500-fields of the Northern Hemisphere. Squared correlations between actual and 6-forecasted amplitudes as well as mean values of cosine of the actual and 6-forecasted phase differences are indicated as quantitative measures of the 6-day forecast skill.