Fig. S3a – Average velocity map from track 215. a) Large scale velocity map. The black star indicates de reference point located at the city of Massa during the preliminary processing. The white rectangle highlights the Pieve Fosciana area. **b)** Velocity map of the Pieve fosciana area. The white star indicates the new reference point. Please note the stability of this pixel in both the maps.

Fig. S3b – Results of the processing test using a coherence threshold of 0.4