

Defining the shallow geothermal heat-exchange potential for a lower fluvial plain of the Central Apennines: the Metauro Valley (Marche Region, Italy)

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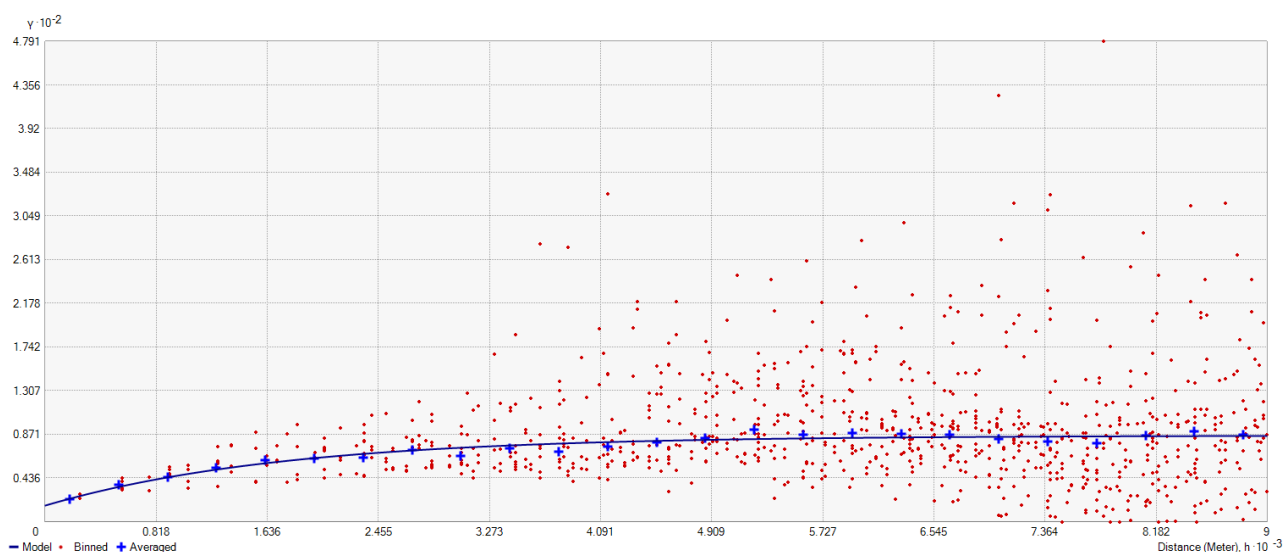
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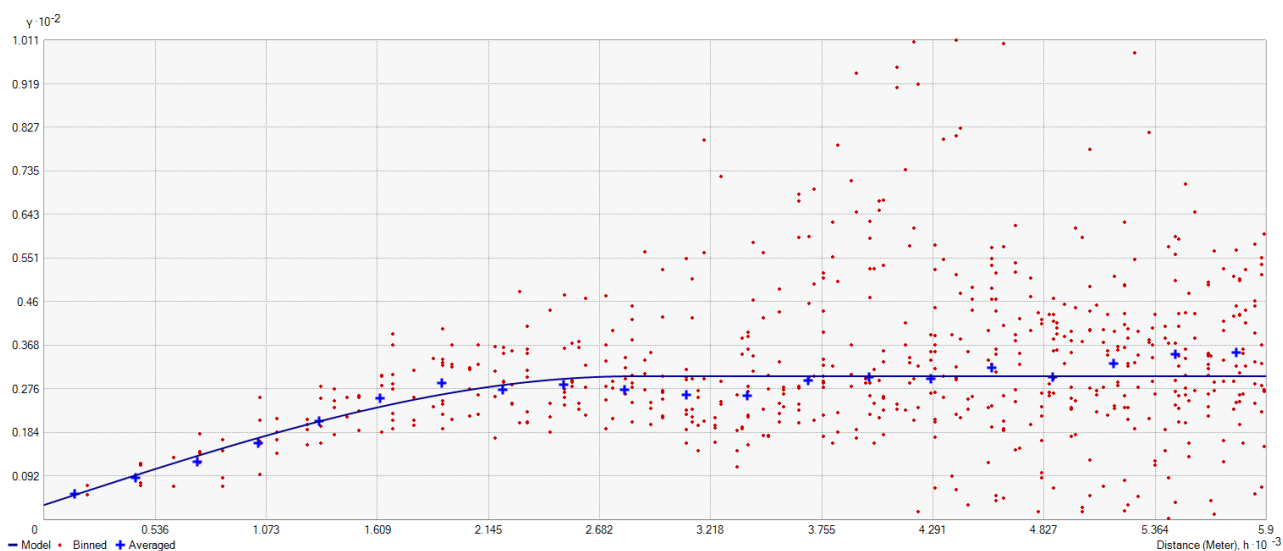
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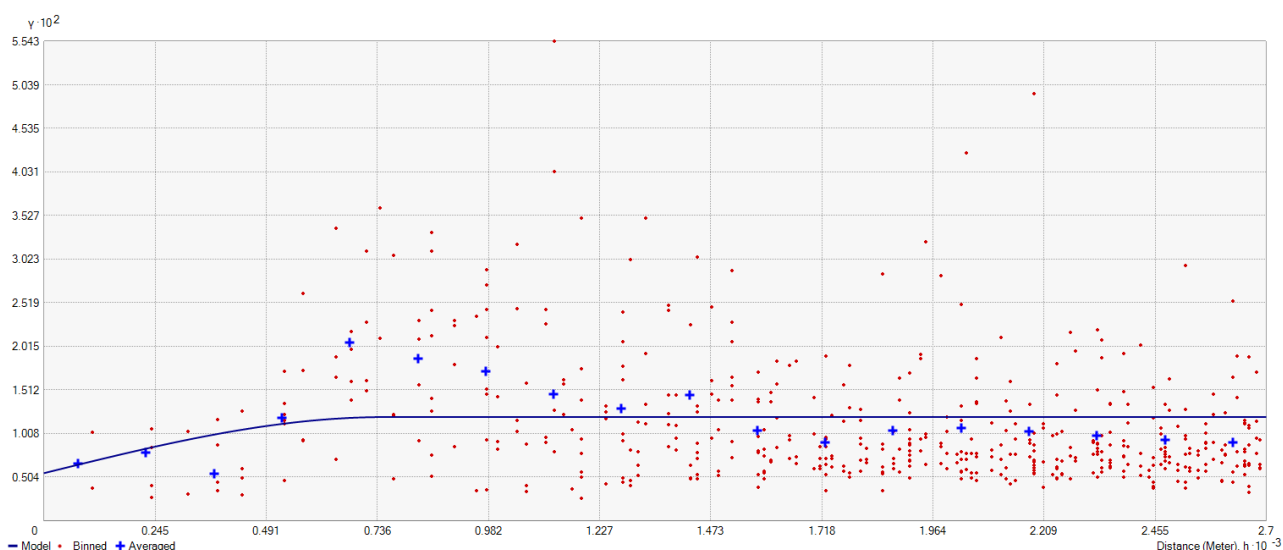
In the present supplementary material the semivariograms developed for the reconstruction of the thematic maps presented in the paper, are reported.



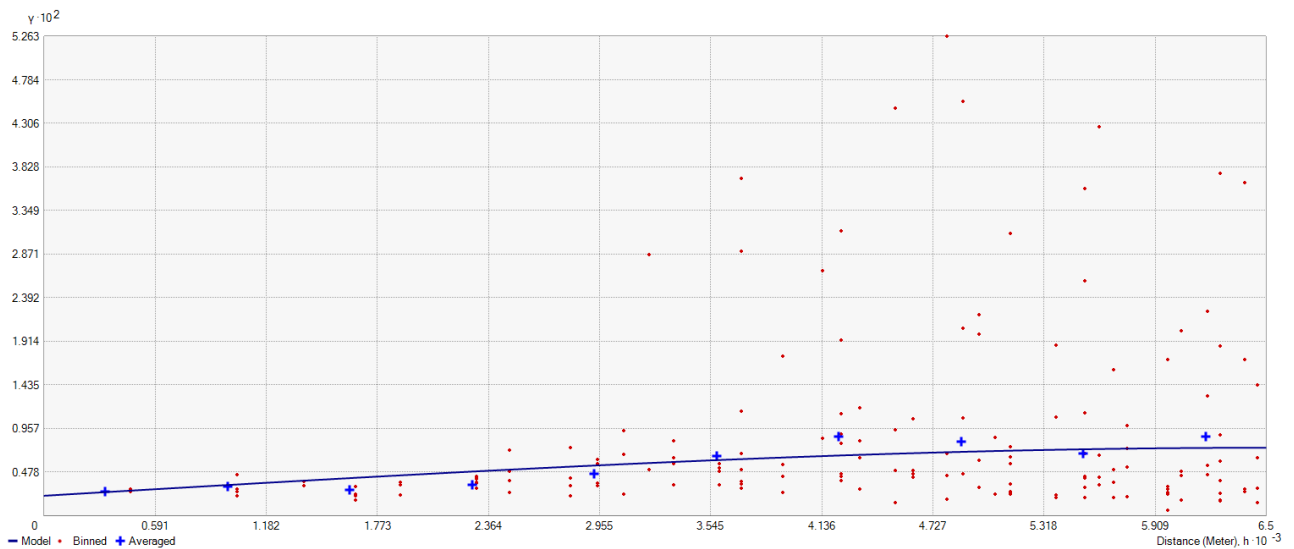
Supplementary figure S1 - Semivariogram obtained for the reconstruction of the bedrock depth in the study area. Main parameters: exponential model; lag size: 360 m; n. of lags: 25; nugget: 16.



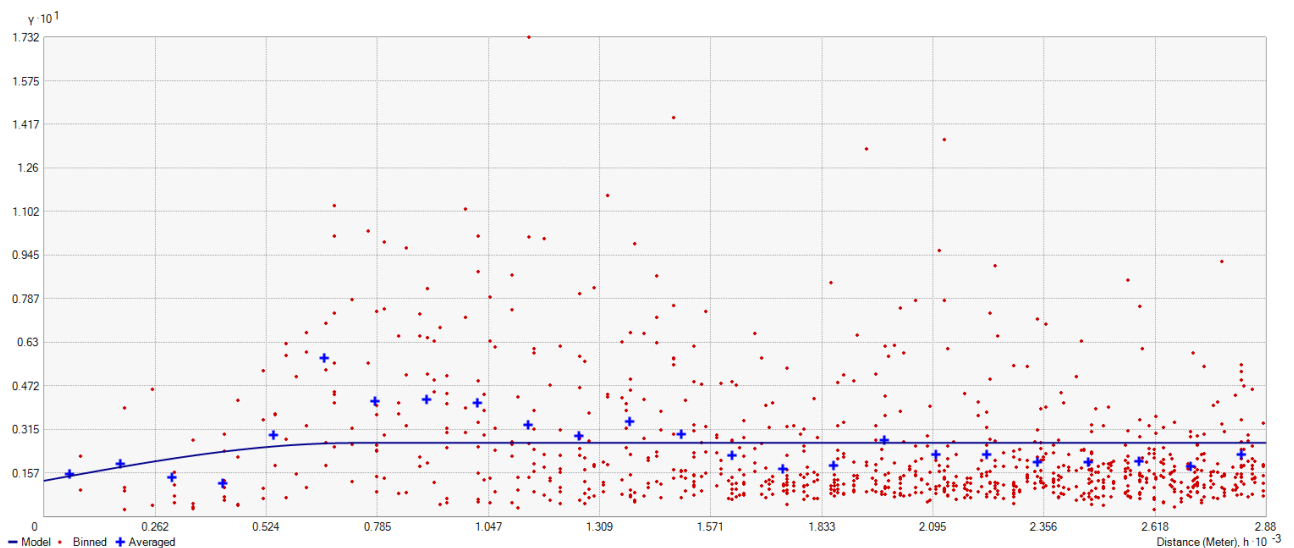
Supplementary figure S2 - Semivariogram obtained for the reconstruction of the saturation depth in the study area. Main parameters: spherical model; lag size: 295 m; n. of lags: 20; nugget: 3.1.



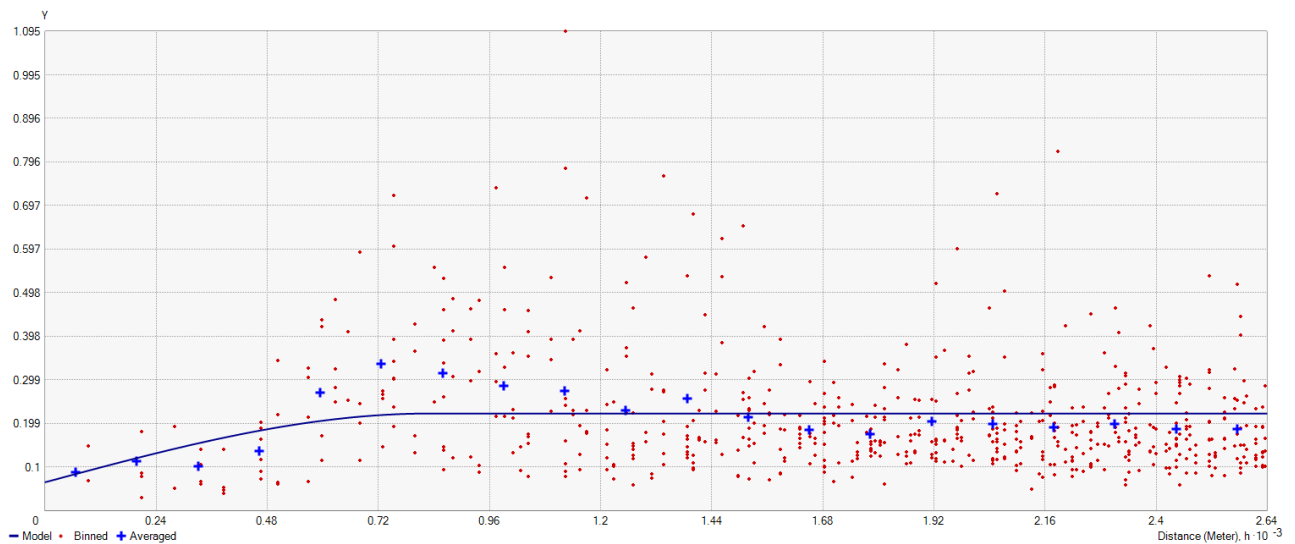
Supplementary figure S3 - Semivariogram obtained for the thermal conductivity of the ground averaged over 100 m of depth from the surface in the study area. Main parameters: spherical model; lag size: 150 m; n. of lags: 18; nugget: 0.005.



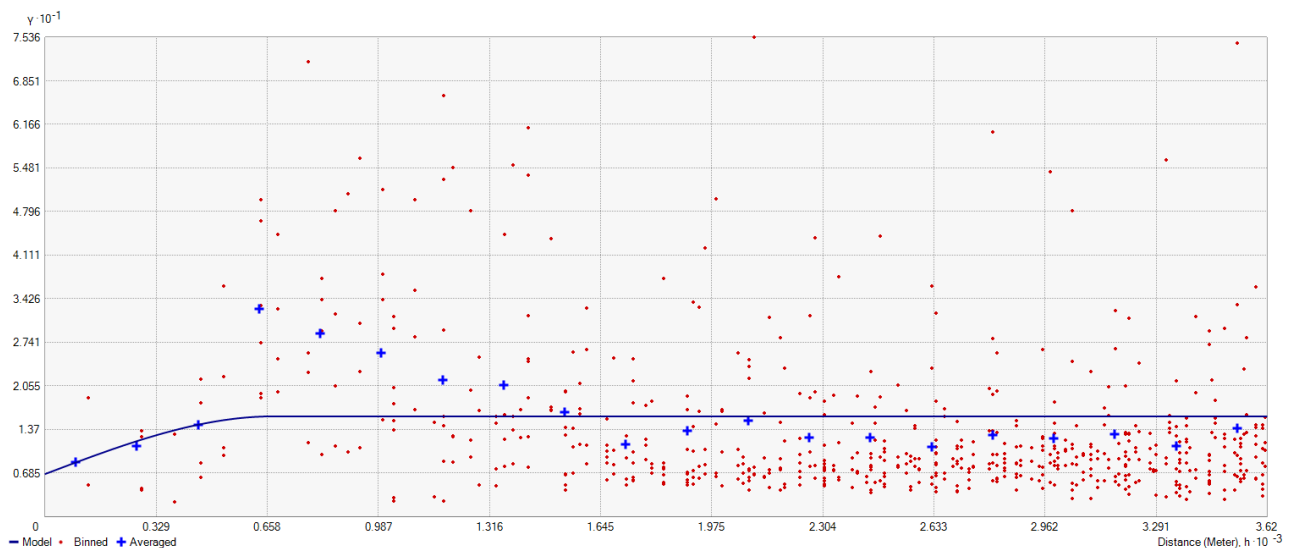
Supplementary figure S4 - Semivariogram obtained for the volumetric heat capacity of the ground averaged over 100 m of depth from the surface in the study area. Main parameters: spherical model; lag size: 650 m; n. of lags: 10; nugget: 0.002.



Supplementary figure S5 - Semivariogram obtained for the specific heat extraction for 100 m depth boreholes in the study area. Main parameters: spherical model; lag size: 120 m; n. of lags: 24; nugget: 0.013.



Supplementary figure S6 - Semivariogram obtained for geothermal potential in the study area. Main parameters: spherical model; lag size: 132 m; n. of lags: 20; nugget: 0.065.



Supplementary figure S7 - Semivariogram obtained for the reconstruction of the depth to be drilled for supply a fixed domestic energy demand of 4.0 kW in the study area. Main parameters: spherical model; lag size: 181 m; n. of lags: 20; nugget: 6.7.