



**Figure S1:** The domain is limited by the Tyrrhenian Sea (light blue) and by the Apennines and the Cilento mountain range (light green). The area includes the Garigliano, Volturno, Sarno, and Sele plains (yellow), the volcanic units Vesuvio, Phlegraean Fields, and Roccamonfina (white) and the limestone units Mount Massico, Mount Maggiore, and Mounts Lattari (white). More in detail: the Garigliano plain hosts the Garigliano river, the Volturno plain hosts the Savone, Agnena, Volturno, and Regi Lagni rivers, the Sarno plain hosts the Sarno rivers, and the Sele plain hosts the Picentino, Tusciano, Sele and Calore rivers.