

Seminario

## **Functional Soil Properties in Viticulture: Soil and Geological Controls on Terroir Across Scales**

Tuesday, 10 March 2026 – 16:30, Aula Arduino

Relatore: **Edoardo A.C. Costantini**

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The presentation examines how soil properties and geology shape terroir and wine quality at different scales. Terroir is defined as the unique combination of environmental and human factors influencing wine quality. Key soil properties—such as texture, stoniness, drainage, color, water and nutrient availability—are crucial for vine growth and wine characteristics. The nature of rocks and sediments affects soil's physical and chemical traits, impacting root systems. Soil variation occurs both in profile and across landscapes, influencing terroir expression. Climate and soil interact to affect vine physiology, yield, and wine features. Case studies from Italian wine regions show that different soils produce distinct wine styles. The terroir effect is amplified in dry summers and reduced in humid ones; while geology and climate dominate when soils are less developed. Understanding soil functional properties and spatial variability is essential for optimizing wine quality.

Proponente: **Cristiano Nicosia**

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