

## ABSTRACT:

### Bridging the Gap between Scientific Research and Conservation Practice: A Methodological Approach to Outdoor Marine Bronze Preservation

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In this talk the major achievements of the PRIN2022 MEDUSA project: "MarinE outDoor bronze sUrfaceS: a methodological Approach" will be presented. The project derived from the general and urgent need for standardized materials and methods for testing the long-lasting performance of innovative products and protective treatments for outdoor bronze artworks in marine/coastal environments. Although a large number of scientific literature data, the difficulty of modelling the complexity of an outdoor bronze artwork surface subjected to climatic variations still hinders the technological transfer of sustainable products and treatments to the conservation/restoration professionals. An integrated analytical strategy was developed for the characterization and long-term monitoring of traditional and environmentally sustainable nanostructured coating formulations applied on foundry-patinated quaternary bronze mock-ups weathered to industrial-urban marine and rural marine environments [1, 2].

## References

- [1] M. P. Casaletto et. al., METAL 2025 Proceedings of the International Conference on Metals Conservation, 1-5 September 2025, Cardiff (UK), 351-359 (2025)
- [2] G. Pellis et. al., Molecules, 29 (23), 5702 (2024). <https://doi.org/10.3390/molecules29235702>

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