

PROCEEDINGS of the 2nd Symposium: The Acoustics of Ancient Theatres 6-8 July 2022 Verona, Italy

Implementation and use of Electronic Beam Steering techniques to optimize the performance of the audio system

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ABSTRACT

The ability to digitally adjust the dispersion of a line array system is a major advantage when it comes to guaranteeing the identical listening experience to all audience members in large venues. Advanced optimization algorithms are employed to shape the sound beam with extremely high resolution in frequency, thus providing a more uniform frequency response in the seating area and a stronger reduction of the noise pollution in the areas where the sound pressure must be kept at a minimum. This presentation discusses advantages, limitations and future developments of Electronic Beam Steering (EBS) techniques with examples of applications in large outdoor spaces.







10.58874/SAAT.2022.162