

**ACOUSTICS2008/1463**  
**The acoustical design of rehearsal rooms for orchestra and choir in  
the Teatro Lirico in Cagliari**

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The acoustical conditions of rehearsal rooms are of primal importance during the training process of an orchestra or a choir. For this reason these spaces should be specifically designed to allow the musicians to clearly hear themselves and each other. At the same time an appropriate sound level should be maintained to avoid extensive exposure to high levels, which is a risk seldom lamented among musicians. Notwithstanding the peculiar role of these rooms in the musical production process, their acoustical requirements are still not sufficiently clarified. In particular the most effective parameters to employ and the best ranges to adopt need further investigations. This work reports the final acoustical optimization of the orchestra and choir rehearsal rooms in the Teatro Lirico in Cagliari (Italy). The comparison between the acoustical parameters before and after the refurbishment will be shown and discussed, with a focus on the difference between the sound level generated by the performer himself and by the others.