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Measuring perceived spatial quality changes in surround sound reproduction

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The spatial quality of audio content delivery systems is becoming increasingly important as service providers attempt to deliver enhanced experiences of spatial immersion and naturalness in audio-visual applications. Examples are virtual reality, telepresence, home cinema, games and communications products. The QES-TRAL project is developing an artificial listener that will compare the perceived quality of a spatial audio reproduction to a reference reproduction. The model is calibrated using data from listening tests, and utilises a range of metrics to predict the resulting spatial sound quality ratings. Potential application areas for the model are outlined, together with exemplary results obtained from some of its component parts.