**Proficiency tests of electromagnetic compatibility measurements**

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Abstract – Since 2012 the University of Florence, in collaboration with the Italian National Metrological Institute (INRIM), has been providing a proficiency testing service of electromagnetic compatibility (EMC) radiated and conducted emission measurements to testing laboratories in Europe. The scope of proficiency tests is the assessment of the competence of testing laboratories through an experimental activity. Proficiency tests complement the on-site inspection carried out by accreditation bodies for the purpose of verification of the requirements of ISO/IEC 17025. Participation in proficiency tests is a requirement of ISO/IEC 17025 for assurance of the validity of test results. During the talk the peculiarities of EMC radiated emission proficiency tests in anechoic and semianechoic chambers will be discussed. Further, the design and characterization of the travelling sample used for the most recently performed proficiency tests will be presented. It will be shown how a low-uncertainty calibration of the sample has been achieved through the joint use of electromagnetic simulations and measurements.

Bio – Carlo Carobbi is an assistant professor of electronic measurements at the Department of Information Engineering of the University of Florence, Italy. He has been member of the Joint Task Force between IEC TC 77 and CISPR on Measurement Uncertainty, the working group in charge of the writing of the standard IEC TR 61000-1-6, published in 2012. He is member of MT 12, the working group of the IEC SC 77B responsible for the maintenance of the standards on immunity to impulses, such as ESD, Surge and Electrical Fast Transient Burst. He has been chairman of the mirror of the IEC SC 77 B in Italy for nine years. Carlo is a technical assessor of the Italian accreditation body for both the testing and calibration departments. He is Senior Member of both IEEE and URSI and associate editor and distinguished reviewer of the IEEE Transactions on Electromagnetic Compatibility. He is recipient of the IEC 1906 Award for his contribution to standardization in EMC and of the Best EMC paper Award of the 2017 IEEE Symposium on EMC (Washington, DC).