Andrea Tonello research interests are in the domain of communication theory, signal processing, statistical and machine learning, electronics with application to wireless systems, smart energy grids, IoT and robotics. In these domains, he has published about 300 papers in journal and conferences (mostly IEEE). He has also been the co-inventor of 10 patents and contributed to the standardization of wireless technology.

He received the Laurea Degree (cum laude) in electrical engineering and the PhD in electrical and telecommunication engineering from the University of Padova, Italy. He has been technical manager at Bell Labs-Lucent Technologies, USA, and managing director of Bell Labs Italy where he was responsible for research activities on cellular technology. He has spent invited research sabbaticals at the University of Strathclyde (UK), INSA-Rennes (France) and Universidad Carlos III de Madrid (Spain).

Currently, he is professor and the chair of the embedded communication systems group at the University of Klagenfurt, Austria, and he has a part-time associate professor post at the University of Udine, Italy.

Dr. Tonello has been the recipient of several awards including: the Lucent Bell Labs Recognition of Excellence Award (1999), the RAENG (UK) Distinguished Visiting Fellowship (2010), the IEEE Vehicular Technology Society Distinguished Lecturer Award (2011-15), the IEEE Communications Society (ComSoc) Distinguished Lecturer Award (2018-19), the IEEE ComSoc TC-PLC Interdisciplinary and Research Award (2019), the IEEE ComSoc TC-PLC Outstanding Service Award (2019), the Chair of Excellence from UC3M (2019-20), the Italian Full Professor Habilitation (2012). He also was the recipient or co-recipient of 10 best paper awards.

Dr. Tonello has been associate editor of IEEE Trans. on Vehicular Technology, IEEE Trans. on Communications, IEEE ACCESS, AEÜ International Journal of Electronics and Communications, IET Smart Grid, Elsevier Journal of Energy and Artificial Intelligence. He has also been guest co-editor in the IEEE Journal of Selected Areas in Communications and IEEE Communication Magazine. He has been general chair of IEEE Smart Grid Communications Conference (2014) and IEEE Int. Symposium on Power Line Communications (2011). He has been TPC co-chair or track co-chair in a number of IEEE conferences.

Dr. Tonello has been PI in national, EU projects and industry cooperation projects. He has served as project evaluator in international founding agencies. He has been the chair of the IEEE ComSoc Technical Committee on PLC (2014-18), and the director for industry outreach in the IEEE ComSoc board of governors (2020-21). He serves as the chair of the IEEE ComSoc Technical Committee on Smart Grid Communications (2020-23).