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Photonics: a great testing-ground to develop new AI algorithms for science

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Abstract: The recent AI revolution presents a number of exciting opportunities for photonics, both to help us with photonics research, but also for photonics to help further advances in AI, and especially to help develop better AI algorithms for science. Some of our recent work in these topics will be presented.

Bio: Marin Soljačić is Professor of Physics at MIT. His main research interests are in artificial intelligence, as well as electromagnetic phenomena, focusing on nanophotonics, non-linear optics, and wireless power transfer. He is a co-author of more than 200 scientific articles, more than 100 issued US patents, and he has been invited to give more than 100 invited talks at conferences and universities around the world. He is the recipient of the Adolph Lomb medal from the Optical Society of America (2005), and the TR35 award of the Technology Review magazine (2006). In 2008, he was awarded a MacArthur fellowship “genius” grant. He is an international member of the Croatian Academy of Engineering since 2009. In 2011 he became a Young Global Leader (YGL) of the World Economic Forum. In 2014, he was awarded Blavatnik National Award, as well as Invented Here! (Boston Patent Law Association). In 2017, he was awarded "The Order of the Croatian Daystar, with the image of Ruđer Bošković", the Croatian President’s top medal for Science. In 2017, the Croatian President also awarded him with "The Order of the Croatian Interlace" medal.