

**Plenary Talk** PV XIX Fri 15:15 Audimax 1  
**Scalable semiconductor quantum and classical photonic systems** — ●JELENA VUCKOVIC — Stanford University  
Classical and quantum photonics with superior properties can be im-

plemented in a variety of photonic materials (silicon, diamond, silicon carbide) by combining state of the art optimization and machine learning techniques (photonics inverse design) with new fabrication approaches.