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Spotting hidden weakness of constitutive laws with multi-agent deep reinforcement learning

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Short Bio

Professor Sun obtained his B.S. from UC Davis (2005); M.S. in civil engineering (geomechanics) from Stanford (2007); M.A. degree from Princeton (2008); and Ph.D. in theoretical and applied mechanics from Northwestern (2011). From 2011 to 2014, he worked at the Mechanics of Materials department at Sandia (Livermore), first as a postdoc, then senior MTS. Sun's research focuses on theoretical, computational, and data-driven mechanics for porous media and geological materials. He is the recipient of the IACM John Argyris Award (2020), NSF CAREER Award (2019), the EMI Leonardo da Vinci Award (2018), the Zienkiewicz Numerical Methods Engineering Prize (2017), AFOSR Young Investigator Program Award (2017), Dresden Fellowship (2016), ARO Young Investigator Program Award (2015), and the Caterpillar Best Paper Prize (2014), among others.