Call for Papers for the Special Focus on Photonics in Artificial Intelligence (Photonics-AI)

AI is one of the emerging topics of broad interest. Photonics is assisting artificial intelligence (AI). Combination of photonics and AI for photonics-enabled applications is an exciting new prospect. AI encompasses many technologies, such as machine learning, cloud computing and big data. It overlaps considerably with photonics and integrated Si materials. With current rapid development of new photonic materials and devices, many AI based devices and systems, like robots, autonomous driving, unmanned autonomous vehicles (UAVs), and drones, rely heavily on photonic sensors, photonic networks and telecommunications to realize practical and smart functionality. Photonics applied to AI has become a more important topic today.

In this special issue of *SCIENCE CHINA Information Sciences*, the focus is on the latest progress in Photonics in Artificial Intelligence, including Integrated smart photonic materials and devices, Photonics for LiDAR, Photonics for Robot Sensing, Photonics for Smart and Big Data, etc. Topics may include, but are not limited to:

1. Integrated smart photonic materials
2. Integrated micro sensor devices
3. Photonics for LiDAR
4. Photonics for Robot Sensing
5. Photonics for Smart and Big Data
6. Bio-inspired electronics and photonics
7. Photonics for machine vision, deep learning and deep neural network
8. Nanophotonic reservoir computing using photonic devices
9. Neuromorphic photonics
10. Photonics for smart imaging and display

The manuscripts are suggested to be edited in the SCIS template, and submitted online through the manuscript submission system of the *SCIENCE CHINA Information Sciences*. The submission website is https://mc03.manuscriptcentral.com/scis. Authors should choose Special Focus on Photonics in Artificial Intelligence (Photonics-AI) in submission type. Information and guidelines on preparation of manuscripts are available on the journal website: http://scis.scichina.com.

Important Dates:
Manuscript submission deadline: Jan. 15, 2020
Acceptance notification: Apr. 15 2020
Final manuscripts due: May 15, 2020
Publication: August 1, 2020

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