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(A few) Deep-Learning applications in Gravitational Lensing

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Large scale imaging surveys will increase the number of galaxy-scale strong lensing candidates by maybe three orders of magnitudes beyond the number known today. Finding these rare objects will require picking them out of at least tens of millions of images and deriving scientific results from them will require quantifying the efficiency and bias of any search method. I present a description and results of an open gravitational lens finding challenge. Participants were
asked to identify lenses in simulated lenses. A variety of methods were used including visual inspection, arc and ring finders, support vector machines (SVM) and convolutional neural networks (CNN).
I will also discuss the future challenges and developments in this subject.

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