

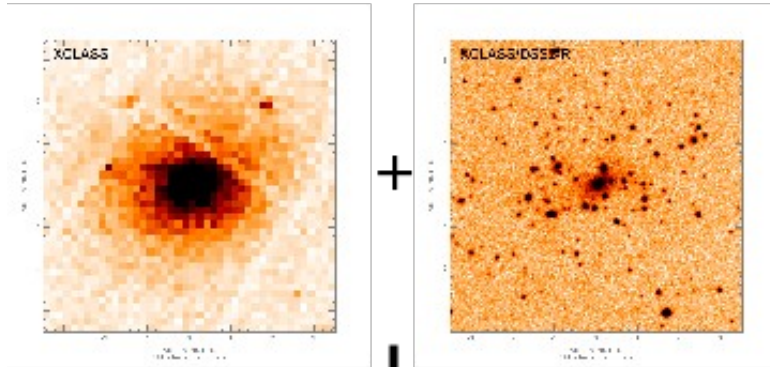
# CNN Classification of X-ray Selected Clusters

Matej Kosiba

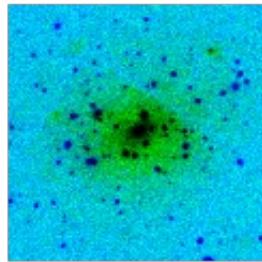
In collaboration with:

M. Lieu, B. Altieri, I. Valtchanov, S. Kendrew, T. Sadibekova,  
L. Faccioli, N. Clerc, M. Pierre, F. Hroch & N. Werner

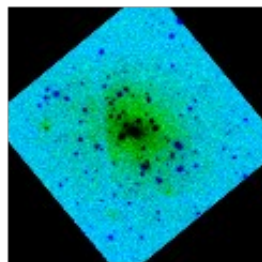
Input



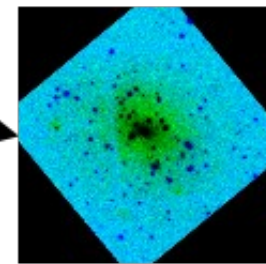
Preprocessing



Augmentation



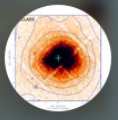
Augmented input



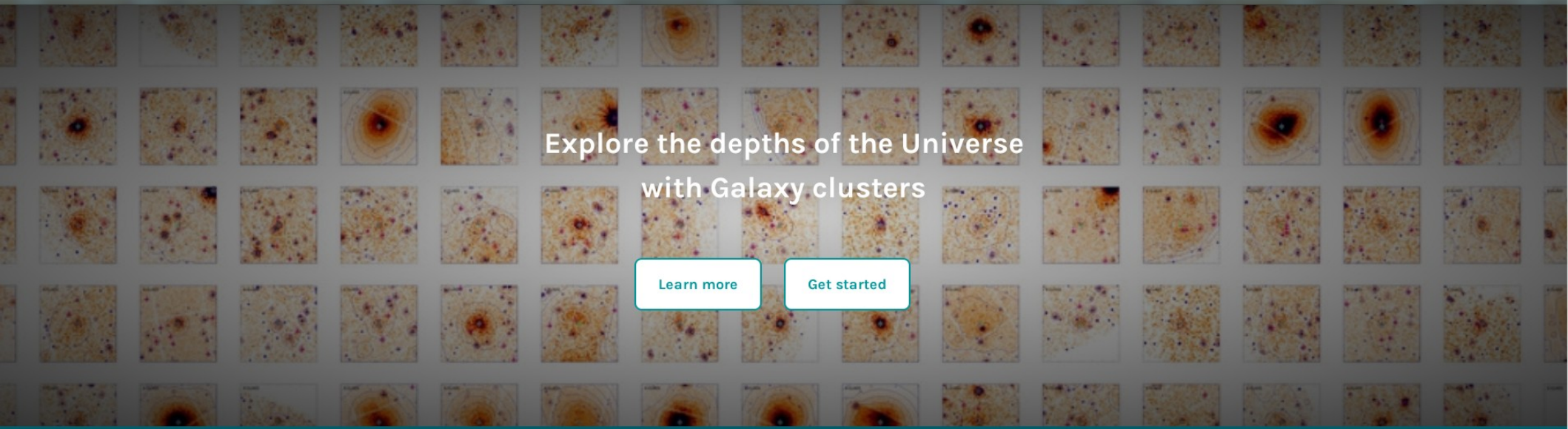
+ Label

Convolutional neural network

Predictions



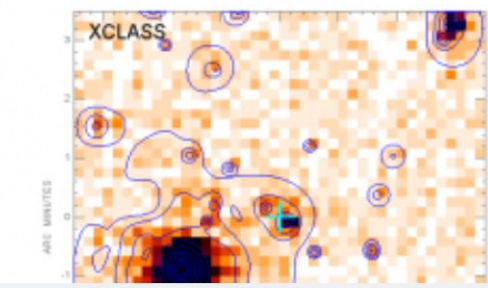
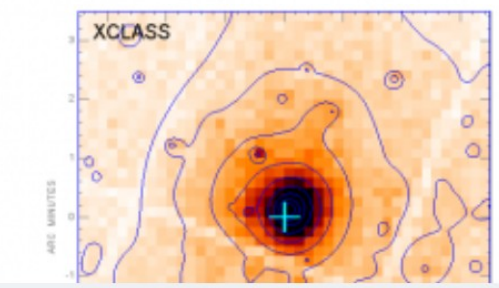
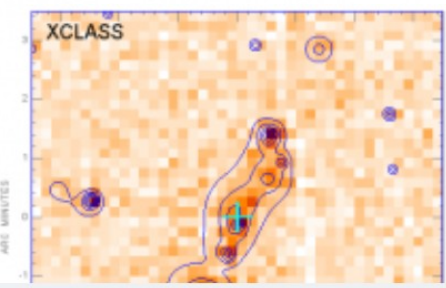
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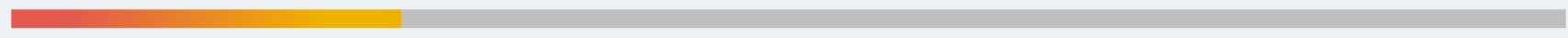
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### THE HUNT FOR GALAXY CLUSTERS STATISTICS



25% Complete

**1 063**

Volunteers

**41 925**

Classifications

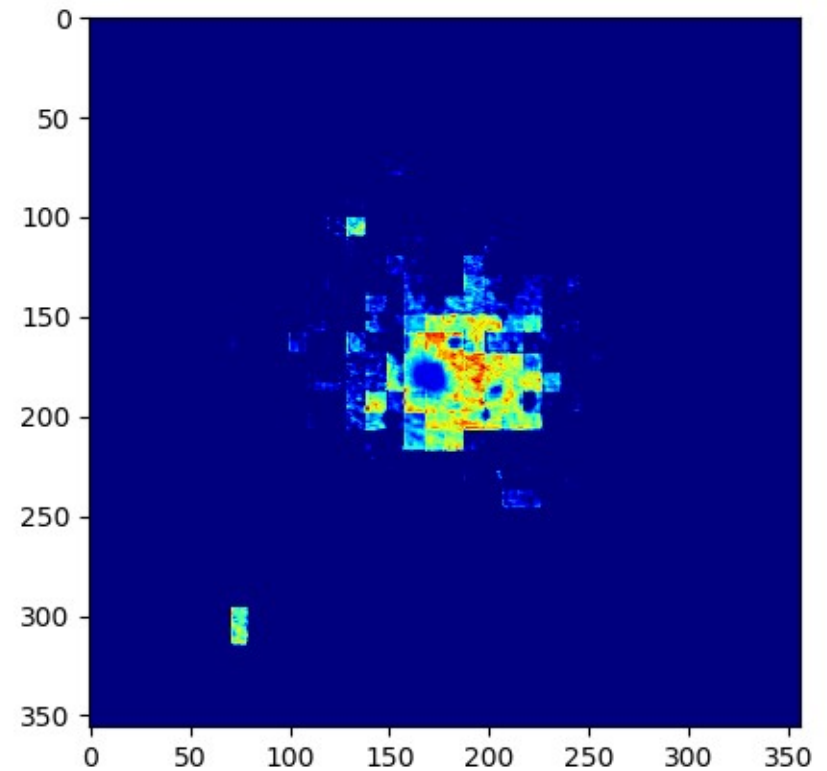
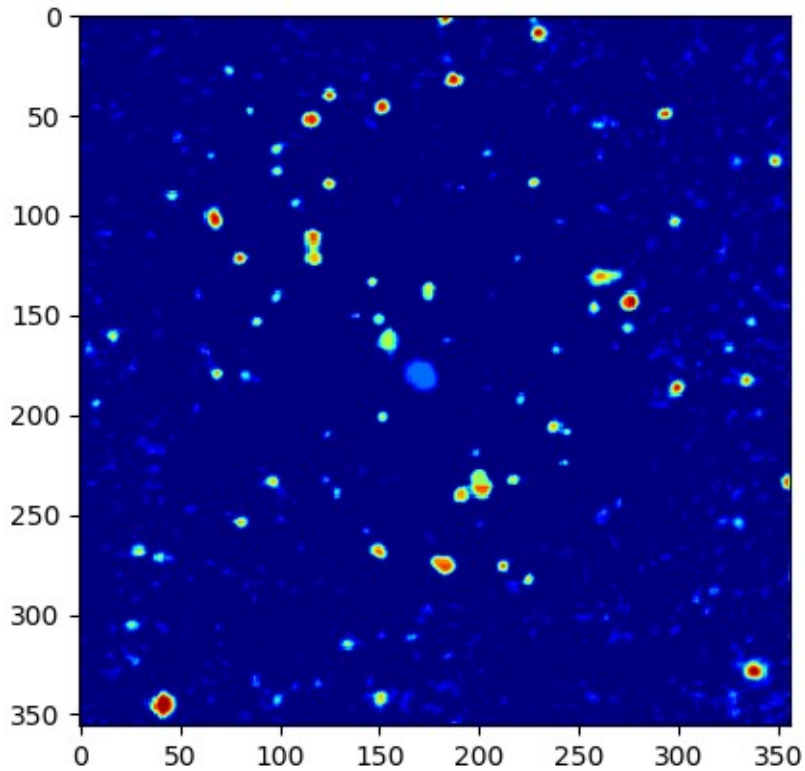
**1 600**

Subjects

**402**

Completed Subjects

# Outputs of few convolutional filters



# ROC curve of best CNN architecture

