

# Low-latency Noise Subtraction of Gravitational Wave Data by DeepClean

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DeepClean is the technique using deep learning to clean the environmental noises in the gravitational wave strain data. The signals from the witness sensors recording the environmental noises are used to produce the noises coupled to the strain data. After training the DeepClean model, the online cleaning in low latency is conducted by the Inference-as-a-Service model. The plans of implementing the online DeepClean in LIGO and KAGRA for the coming O4 observation will be introduced.

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