Video Denoising
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Motivation
- Many denoising methods for images
- How about videos?
- Take advantage of similarities between frames

[Images of noisy and original video frames]

Related Work
Video BM3D
- Extension of BM3D for images
- Groups similar 2D fragments
- Jointly filters each group
- Returns each fragment to its original position

[Image from [3]]

New Techniques
Averaging
- Non-local means in spatial domain
- Non-local means in spatial and temporal domain

[Diagram showing averaging process with weights]

Experimental Results
- Averaging
  - PSNR = 20.83 dB
- Averaging with weights
  - PSNR = 21.61 dB
  - PSNR = 28.14 dB
  - PSNR = 27.35 dB
  - Video BM3D
    - PSNR = 30.99 dB

[Images showing experimental results]

References