VFR Technical Report 2025-04 · 15 April 2025

Loop-Consistency: Detecting Seams in Periodic Video with Flow Continuity

Elias Nordqvist, Priya Raghunathan
VideoFinder Research — Helsinki · Kadrowa Labs Nordics Oy, 00180 Helsinki

Abstract

Seamless loops are among the most licensed clips on stock platforms, and visible seams are the most common reason they are rejected. We frame seam detection as a test of temporal continuity at the loop joint, comparing frame difference, optical-flow continuity and higher-order motion statistics across the joint with the distribution elsewhere in the clip. The detector flags 94.7% of seams marked by human reviewers at a 2% false-positive rate and runs in under a second per clip. It has been deployed on every upload labelled as a loop since March 2025.

About this document

This is the public extended abstract. The full report, including appendices, ablations and evaluation scripts, is available on request from research@videofinder.link. Code and data referenced in this work are listed at https://helsinki.videofinder.link/open-source.html and /datasets.html.

Cite as

```
@techreport{nordqvist2025loopconsistency,
  title = {Loop-Consistency: Detecting Seams in Periodic Video with Flow
  Continuity},
  institution = {VideoFinder Research, Kadrowa Labs Nordics Oy},
  year = {2025}, number = {VFR-TR-2025-04}
}
```