# Supplementary Materials for Paper 2054
# DanceCamAnimator: Keyframe-Based Controllable 3D Dance Camera Synthesis

Anonymous Authors

## 1 VIDEO DEMOS

**Experiment Results.** In '2054_supp_video.mp4', we illustrate some video results of our experiments including:

- Comparison to state-of-the-art.
- Ablation study.
- Keyframe-level controllability.

**Videos Samples with Higher Quality.** Since we find the compressed videos in '2054_supp_video.mp4' can not clearly showcase the jittering of results from the baseline DanceCamera3D [1], we provide a group of dance videos with higher quality. Given the same music and dance, 'gt_66_6.mp4', 'dc3d_66_6.mp4', 'dc3dFiltered_66_6.mp4', and 'dca_66_6.mp4' respectively denote rendered results from ground truth, DanceCamera3D, DanceCamera3D with post-filtering, and our DanceCamAnimitor. The comparison between 'dc3d_66_6.mp4' and the other videos better illustrates the jittering and the damage that jittering brings to the video. This group of videos corresponds to 00:07 to 00:40 in '2054_supp_video.mp4'.

Moreover, we also provide videos with higher quality in the ablation study. Given the same music and dance, 'dca_90_4.mp4' and 'dcaAblation_90_4.mp4' denote the results of our DanceCamAnimitor and DanceCamAnimitor without predicting tween function values. The comparison between these two videos better showcases the jittering when we ablate the tween function design. Thus, this ablation study demonstrates the efficacy of our design to predict tween function values instead of directly generating camera movements. This group of videos corresponds to 01:39 to 01:59 in '2054_supp_video.mp4'.

## REFERENCES

[1] Zixuan Wang, Jia Jia, Shikun Sun, Haozhe Wu, Rong Han, Zhenyu Li, Di Tang, Jiaqing Zhou, and Jiebo Luo. 2024. DanceCamera3D: 3D Camera Movement Synthesis with Music and Dance. In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*.