

先端科学技術研究科 修士論文要旨

所属研究室 (主指導教員)	光メディアインタフェース (向川 康博 (教授))		
学籍番号	2111425	提出日	令和 5年 7月 19日
学生氏名	LU JINZHENG		
論文題目	Improving Temporal Consistency for Automatic Anime Colorization		
要旨			
<p>Under the framework of Few-shot Patch-based Learning, significant progress has been made in the automatic coloring of animation styles. However, in the context of coloring animation images, the influence of temporal information between adjacent frames within the same video sequence has largely been overlooked. In this paper, we propose a simple yet effective approach called "temporal pseudo supervision," designed to enhance temporal consistency during training. By utilizing temporal representations extracted from the target video sequence, our method strengthens the model's consistency training in the spatio-temporal domain. Specifically, we leverage optical flow predictions from video frames to perform targeted warping on the target images, thereby enhancing temporal consistency during the training process. Compared to previous methods, our approach effectively addresses the issue of neglecting temporal consistency by incorporating temporal information into the training process in a more straightforward manner.</p>			