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Enhanced Imaging of Dental Structure Using MRI Physics JULIA KIM, NAYEOUN KIM, BOSUL LEE, CRG(Choice Research Group) — Magnetic Resonance Imaging is a common medical imaging technique that uses magnetism and computers to determine the anatomy and physiology of intended subjects in multiple areas. The technique is prevalently used in medical and dental diagnosis. In this paper, human tooth and jaw image data are first transmitted into a spatial frequency (k-space) domain through the Fourier Transformation and physical coordinate transformations. This study compares the resolution of an original MRI image with image obtained using filtered data of a human tooth and jaw. The main purpose of this research is to develop a better algorithm that would enhance the quality of the final MRI image, decrease the amount of time required to produce it, and generate the image with less ringing artifact.

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