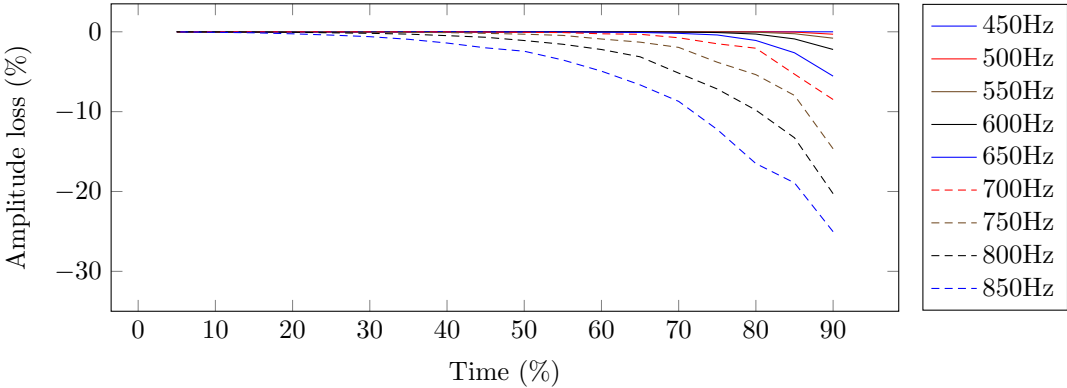Vibration amplitude loss for time-variant frequencies: Stem