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Kurtosis Quantification of Different Minimal Quantity Lubrication Effects in Machining Cast Iron with Coated and Uncoated Tool

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ABSTRACT – This paper presents comparative study on dry and MQL effect in coated/ uncoated milling process based on kurtosis and skewness quantification. By combining vibration signals, it is possible to identify with more reliability. The use of different statistical measurement such as RMS, kurtosis and skewness, together with surface roughness measurement allows identifying the tool and workpiece condition under dry/ MQL application. It was found that kurtosis detect different MQL affect the average surface roughness for both coated and uncoated end mill.