Stable shape features

Feature name	NSCLC	HNSCC	MPM
volume	✓	✓	✓
surface	✓	✓	
compactness_1	✓		
compactness_2	✓		
spherical disproportion	✓		
sphericity	✓		
asphericity	✓		
surface to volume ratio	✓	✓	
median thickness	✓	✓	
standard deviation thickness	✓	✓	
euclidian distance	✓	✓	
major axis length	✓	✓	
minor axis length	✓	✓	
least axis length	✓	✓	
elongation			
flatness	✓		
fractal dimension			
center of mass shift			

Table 1: Stable shape features, intraclass correlation coefficient >0.8. NSCLC – non-small cell lung cancer, HNSCC – head and neck squamous cell carcinoma, MPM – malignant pleural mesothelioma.

Stable intensity features

Feature name	NSCLC	HNSCC	MPM
mean	✓	✓	
standard deviation	✓	✓	
coefficient of variation			
skewness	✓	✓	
kurtosis	✓	✓	
variance	✓	✓	
median	✓	✓	✓
percentile 10th	✓		
percentile 90th	✓	✓	
interquartile range	✓	✓	
range			
mean absolute deviation	✓	✓	
robust mean absolute deviation	✓	✓	
energy	✓	✓	✓
entropy	✓	✓	
root mean square	✓	✓	
uniformity	✓	✓	

Table 2: Stable intensity features, intraclass correlation coefficient >0.8. NSCLC – non-small cell lung cancer, HNSCC – head and neck squamous cell carcinoma, MPM – malignant pleural mesothelioma.

Stable texture features

Feature name	NSCLC	HNSCC	MPM
GLCM energy	✓	✓	
GLCM entropy	✓	✓	
GLCM contrast	✓	✓	
GLCM correlation	✓		
GLCM homogeneity	✓	✓	
GLCM homogeneity normalized	✓	✓	
GLCM inverse difference	✓	✓	
GLCM inverse difference normalized	✓	✓	
GLCM variance	✓	✓	
GLCM sum of average	✓	✓	
GLCM sum of entropy	✓	✓	✓
GLCM sum of variance	✓		
GLCM difference entropy	✓	✓	✓
GLCM difference variance	✓	✓	
GLCM information measures of correlation 1	✓	✓	
GLCM information measures of correlation 2	✓	✓	✓
GLCM maximal correlation coefficient	✓		
GLCM joint maximum	✓	✓	✓
GLCM joint average	✓	✓	
GLCM difference average	✓	✓	
GLCM dissimilarity	✓	✓	
GLCM inverse variance	✓	✓	
GLCM autocorrelation	✓	✓	
GLCM cluster tendency	✓		
GLCM cluster shade	✓		
GLCM cluster prominence			
m_GLCM energy	✓	✓	
m_GLCM entropy	✓	✓	✓
m_GLCM contrast	✓	✓	
m_GLCM correlation	✓		
m_GLCM homogeneity	✓	✓	
m_GLCM homogeneity normalized	✓	✓	
m_GLCM inverse difference	✓	✓	
m_GLCM inverse difference normalized	✓	✓	
m_GLCM variance	✓	✓	
m_GLCM sum of average	✓	✓	
m_GLCM sum of entropy	✓	✓	
m_GLCM sum of variance	✓		

Feature name	NSCLC	HNSCC	MPM
m_GLCM difference entropy	✓	✓	
m_GLCM difference variance	✓	✓	
m_GLCM information measures of correlation 1	✓	✓	
m_GLCM information measures of correlation 2	✓		
m_GLCM maximal correlation coefficient			
m_GLCM joint maximum	✓	✓	
m_GLCM joint average	✓	✓	
m_GLCM difference average	✓	✓	
m_GLCM dissimilarity	✓	✓	
m_GLCM inverse variance	✓	✓	
m_GLCM autocorrelation	✓	✓	
m_GLCM cluster tendency	✓		
m_GLCM cluster shade	✓		
m_GLCM cluster prominence			
NGTDM coarseness	✓	✓	
NGTDM contrast	✓	✓	
NGTDM busyness	✓	✓	✓
NGTDM complexity	✓		✓
NGTDM strength	✓	✓	
GRLM gray level non-uniformity	✓	✓	✓
GRLM gray level non-uniformity normalized	✓	✓	
GRLM zone size non-uniformity	✓	✓	
GRLM zone size non-uniformity normalized	✓	✓	
GRLM short runs emphasis	✓	✓	
GRLM long runs emphasis	✓	✓	
GRLM low gray level run emphasis	✓		
GRLM high gray level run emphasis	✓	✓	
GRLM short run low gray level emphasis	✓		
GRLM short run high gray level emphasis	✓	✓	
GRLM long run low gray level emphasis	✓		
GRLM long run high gray level emphasis	✓	✓	
GRLM run percentage	✓	✓	
GRLM gray level variance	✓	✓	
GRLM run length variance	✓	✓	
GRLM run entropy	✓	✓	✓
m_GRLM gray level non-uniformity	✓	✓	
m_GRLM gray level non-uniformity normalized	✓	✓	
m_GRLM zone size non-uniformity	✓		
m_GRLM zone size non-uniformity normalized	✓		

Feature name	NSCLC	HNSCC	MPM
m_GRLM short runs emphasis	✓	✓	
m_GRLM long runs emphasis	✓	✓	
m_GRLM low gray level run emphasis	✓		
m_GRLM high gray level run emphasis	✓	✓	
m_GRLM short run low gray level emphasis	✓		
m_GRLM short run high gray level emphasis	✓	✓	
m_GRLM long run low gray level emphasis	✓		
m_GRLM long run high gray level emphasis	✓	✓	
m_GRLM run percentage	✓	✓	
m_GRLM gray level variance	✓	✓	
m_GRLM run length variance	✓	✓	
m_GRLM run entropy	✓	✓	✓
GLSZM gray level non-uniformity	✓	✓	✓
GLSZM gray level non-uniformity normalized	✓	✓	
GLSZM zone size non-uniformity	✓		✓
GLSZM zone size non-uniformity normalized	✓		
GLSZM small zone emphasis	✓		
GLSZM large zone emphasis	✓	✓	
GLSZM low gray level zone emphasis	✓		
GLSZM high gray level zone emphasis	✓	✓	
GLSZM small zone low gray level emphasis	✓		
GLSZM small zone high gray level emphasis	✓	✓	
GLSZM large zone low gray level emphasis	✓	✓	
GLSZM large zone high gray level emphasis	✓	✓	
GLSZM zone percentage	✓	✓	
GLSZM gray level variance	✓	✓	
GLSZM zone size variance	✓	✓	
GLSZM zone size entropy	✓		
GLDZM gray level non-uniformity	✓	✓	✓
GLDZM gray level non-uniformity normalized	✓	✓	
GLDZM zone size non-uniformity	✓		
GLDZM zone size non-uniformity normalized	✓	✓	
GLDZM small distance emphasis	✓	✓	
GLDZM large distance emphasis	✓	✓	
GLDZM low gray level zone emphasis	✓		
GLDZM high gray level zone emphasis	✓	✓	
GLDZM small distance low gray level emphasis	✓		
GLDZM small distance high gray level emphasis	✓	✓	
GLDZM large distance low gray level emphasis	✓		

Feature name	NSCLC	HNSCC	MPM
GLDZM large distance high gray level emphasis	✓	✓	
GLDZM zone percentage	✓	✓	
GLDZM gray level variance	✓	✓	
GLDZM zone distance variance	✓	✓	
GLDZM zone distance entropy	✓	✓	
NGLDM gray level non-uniformity	✓	✓	✓
NGLDM gray level non-uniformity normalized	✓	✓	
NGLDM dependence count non-uniformity	✓	✓	✓
NGLDM dependence count non-uniformity normalized	✓	✓	
NGLDM low dependence emphasis	✓	✓	
NGLDM high dependence emphasis	✓	✓	
NGLDM low gray level count emphasis	✓		
NGLDM high gray level count emphasis	✓	✓	
NGLDM low dependence low gray level emphasis	✓		
NGLDM low dependence high gray level emphasis	✓	✓	
NGLDM high dependence low gray level emphasis	✓	✓	
NGLDM high dependence high gray level emphasis	✓	✓	
NGLDM gray level variance	✓	✓	
NGLDM dependence count variance	✓	✓	
NGLDM dependence count entropy	✓	✓	
NGLDM dependence count energy	✓	✓	✓

Table 3: Stable texture features, intraclass correlation coefficient >0.8. NSCLC – non-small cell lung cancer, HNSCC – head and neck squamous cell carcinoma, MPM – malignant pleural mesothelioma, GLCM – the Gray Level Co-occurrence Matrix, m_GLCM – the Gray Level Co-occurrence Matrix, NGTDM – the Neighborhood Gray Tone Difference Matrix, GLRM – the Gray Level Run Length Matrix, m_GRLM – the merged Gray Level Run Length Matrix, GLSZM – the Gray Level Size Zone Matrix, GLDZM – the Gray Level Distance Zone Matrix, NGLDM – the Neighboring Gray Level Dependence Matrix.

Stable wavelet features

Feature name	NSCLC	HNSCC	MPM
HHH intensity mean			
HHH intensity standard deviation	✓	✓	✓
HHH intensity coefficient of variation			
HHH intensity skewness			
HHH intensity kurtosis	✓		
HHH intensity variance	✓	✓	✓
HHH intensity median		✓	
HHH intensity percentile 10th	✓	✓	✓
HHH intensity percentile 90th	✓	✓	✓
HHH intensity interquartile range	✓	✓	✓
HHH intensity range	✓		
HHH intensity mean absolute deviation	✓	✓	✓
HHH intensity robust mean absolute deviation	✓	✓	✓
HHH intensity energy	✓	✓	✓
HHH intensity entropy	✓	✓	✓
HHH intensity root mean square	✓	✓	✓
HHH intensity uniformity	✓	✓	
HHH GLCM energy	✓	✓	
HHH GLCM entropy	✓	✓	✓
HHH GLCM contrast	✓	✓	✓
HHH GLCM correlation			
HHH GLCM homogeneity	✓	✓	
HHH GLCM homogeneity normalized	✓		
HHH GLCM inverse difference	✓	✓	✓
HHH GLCM inverse difference normalized	✓		
HHH GLCM variance	✓	✓	✓
HHH GLCM sum of average	✓		
HHH GLCM sum of entropy	✓	✓	✓
HHH GLCM sum of variance	✓	✓	✓
HHH GLCM difference entropy	✓	✓	✓
HHH GLCM difference variance	✓	✓	✓
HHH GLCM information measures of correlation 1	✓	✓	
HHH GLCM information measures of correlation 2	✓	✓	
HHH GLCM maximal correlation coefficient	✓		
HHH GLCM joint maximum	✓		
HHH GLCM joint average	✓		
HHH GLCM difference average	✓	✓	✓
HHH GLCM dissimilarity	✓	✓	✓

Feature name	NSCLC	HNSCC	MPM
HHH GLCM inverse variance	✓		✓
HHH GLCM autocorrelation	✓		
HHH GLCM cluster tendency	✓	✓	✓
HHH GLCM cluster shade			
HHH GLCM cluster prominence	✓		
HHH m_GLCM energy	✓	✓	
HHH m_GLCM entropy	✓	✓	✓
HHH m_GLCM contrast	✓	✓	✓
HHH m_GLCM correlation			✓
HHH m_GLCM homogeneity	✓	✓	
HHH m_GLCM homogeneity normalized	✓		
HHH m_GLCM inverse difference	✓	✓	✓
HHH m_GLCM inverse difference normalized	✓		
HHH m_GLCM variance	✓	✓	✓
HHH m_GLCM sum of average	✓		
HHH m_GLCM sum of entropy	✓	✓	✓
HHH m_GLCM sum of variance	✓	✓	✓
HHH m_GLCM difference entropy	✓	✓	✓
HHH m_GLCM difference variance	✓	✓	✓
HHH m_GLCM information measures of correlation 1		✓	
HHH m_GLCM information measures of correlation 2	✓	✓	
HHH m_GLCM maximal correlation coefficient		✓	
HHH m_GLCM joint maximum	✓		
HHH m_GLCM joint average	✓		
HHH m_GLCM difference average	✓	✓	✓
HHH m_GLCM dissimilarity	✓	✓	✓
HHH m_GLCM inverse variance	✓		✓
HHH m_GLCM autocorrelation	✓		
HHH m_GLCM cluster tendency	✓	✓	✓
HHH m_GLCM cluster shade			
HHH m_GLCM cluster prominence	✓		
HHH NGTDM coarseness	✓	✓	
HHH NGTDM contrast	✓	✓	
HHH NGTDM busyness			✓
HHH NGTDM complexity	✓		✓
HHH NGTDM strength	✓		
HHH GRLM gray level non-uniformity	✓	✓	✓
HHH GRLM gray level non-uniformity normalized	✓	✓	✓
HHH GRLM zone size non-uniformity	✓	✓	✓

Feature name	NSCLC	HNSCC	MPM
HHH GRLM zone size non-uniformity normalized	✓	✓	
HHH GRLM short runs emphasis	✓	✓	
HHH GRLM long runs emphasis	✓	✓	
HHH GRLM low gray level run emphasis	✓		
HHH GRLM high gray level run emphasis	✓		
HHH GRLM short run low gray level emphasis	✓		
HHH GRLM short run high gray level emphasis	✓		
HHH GRLM long run low gray level emphasis	✓		
HHH GRLM long run high gray level emphasis	✓	✓	
HHH GRLM run percentage	✓	✓	
HHH GRLM gray level variance	✓	✓	✓
HHH GRLM run length variance	✓	✓	
HHH GRLM run entropy	✓	✓	✓
HHH m_GRLM gray level non-uniformity	✓	✓	
HHH m_GRLM gray level non-uniformity normalized	✓	✓	
HHH m_GRLM zone size non-uniformity	✓	✓	
HHH m_GRLM zone size non-uniformity normalized	✓	✓	
HHH m_GRLM short runs emphasis	✓	✓	
HHH m_GRLM long runs emphasis	✓	✓	
HHH m_GRLM low gray level run emphasis	✓		
HHH m_GRLM high gray level run emphasis	✓		
HHH m_GRLM short run low gray level emphasis	✓		
HHH m_GRLM short run high gray level emphasis	✓		
HHH m_GRLM long run low gray level emphasis	✓		
HHH m_GRLM long run high gray level emphasis	✓	✓	
HHH m_GRLM run percentage	✓	✓	
HHH m_GRLM gray level variance	✓	✓	✓
HHH m_GRLM run length variance	✓	✓	
HHH m_GRLM run entropy	✓	✓	✓
HHH GLSZM gray level non-uniformity	✓	✓	✓
HHH GLSZM gray level non-uniformity normalized	✓		✓
HHH GLSZM zone size non-uniformity	✓	✓	✓
HHH GLSZM zone size non-uniformity normalized			
HHH GLSZM small zone emphasis			
HHH GLSZM large zone emphasis	✓	✓	
HHH GLSZM low gray level zone emphasis			
HHH GLSZM high gray level zone emphasis	✓		
HHH GLSZM small zone low gray level emphasis			
HHH GLSZM small zone high gray level emphasis	✓		
HHH GLSZM large zone low gray level emphasis	✓		

Feature name	NSCLC	HNSCC	MPM
HHH GLSZM large zone high gray level emphasis	✓	✓	
HHH GLSZM zone percentage	✓	✓	
HHH GLSZM gray level variance	✓		✓
HHH GLSZM zone size variance	✓	✓	
HHH GLSZM zone size entropy			✓
HHH GLDZM gray level non-uniformity	✓	✓	✓
HHH GLDZM gray level non-uniformity normalized	✓		✓
HHH GLDZM zone size non-uniformity	✓	✓	✓
HHH GLDZM zone size non-uniformity normalized		✓	
HHH GLDZM small distance emphasis		✓	
HHH GLDZM large distance emphasis	✓	✓	
HHH GLDZM low gray level zone emphasis			
HHH GLDZM high gray level zone emphasis	✓		
HHH GLDZM small distance low gray level emphasis			
HHH GLDZM small distance high gray level emphasis	✓		
HHH GLDZM large distance low gray level emphasis			
HHH GLDZM large distance high gray level emphasis	✓		
HHH GLDZM zone percentage	✓	✓	
HHH GLDZM gray level variance	✓		✓
HHH GLDZM zone distance variance	✓	✓	
HHH GLDZM zone distance entropy	✓	✓	
HHH NGLDM gray level non-uniformity	✓	✓	✓
HHH NGLDM gray level non-uniformity normalized	✓	✓	
HHH NGLDM dependence count non-uniformity	✓	✓	✓
HHH NGLDM dependence count non-uniformity normalized	✓	✓	
HHH NGLDM low dependence emphasis	✓	✓	
HHH NGLDM high dependence emphasis	✓	✓	
HHH NGLDM low gray level count emphasis	✓		
HHH NGLDM high gray level count emphasis	✓		
HHH NGLDM low dependence low gray level emphasis			
HHH NGLDM low dependence high gray level emphasis			
HHH NGLDM high dependence low gray level emphasis	✓		
HHH NGLDM high dependence high gray level emphasis	✓	✓	
HHH NGLDM gray level variance	✓	✓	✓
HHH NGLDM dependence count variance	✓		
HHH NGLDM dependence count entropy	✓		
HHH NGLDM dependence count energy	✓		
HHL intensity mean	✓		
HHL intensity standard deviation	✓	✓	✓
HHL intensity coefficient of variation			

Feature name	NSCLC	HNSCC	MPM
HHL intensity skewness	✓		
HHL intensity kurtosis	✓		
HHL intensity variance	✓	✓	✓
HHL intensity median	✓		
HHL intensity percentile 10th	✓	✓	✓
HHL intensity percentile 90th	✓	✓	✓
HHL intensity interquartile range	✓	✓	✓
HHL intensity range	✓	✓	
HHL intensity mean absolute deviation	✓	✓	✓
HHL intensity robust mean absolute deviation	✓	✓	✓
HHL intensity energy	✓	✓	
HHL intensity entropy	✓	✓	✓
HHL intensity root mean square	✓	✓	✓
HHL intensity uniformity	✓	✓	✓
HHL GLCM energy	✓	✓	✓
HHL GLCM entropy	✓	✓	✓
HHL GLCM contrast	✓	✓	✓
HHL GLCM correlation	✓		
HHL GLCM homogeneity	✓	✓	
HHL GLCM homogeneity normalized	✓	✓	
HHL GLCM inverse difference	✓	✓	
HHL GLCM inverse difference normalized	✓	✓	
HHL GLCM variance	✓	✓	✓
HHL GLCM sum of average	✓		✓
HHL GLCM sum of entropy	✓	✓	✓
HHL GLCM sum of variance	✓	✓	✓
HHL GLCM difference entropy	✓	✓	✓
HHL GLCM difference variance	✓	✓	✓
HHL GLCM information measures of correlation 1	✓	✓	
HHL GLCM information measures of correlation 2	✓	✓	✓
HHL GLCM maximal correlation coefficient	✓		
HHL GLCM joint maximum	✓	✓	✓
HHL GLCM joint average	✓		✓
HHL GLCM difference average	✓	✓	✓
HHL GLCM dissimilarity	✓	✓	✓
HHL GLCM inverse variance	✓	✓	
HHL GLCM autocorrelation	✓		✓
HHL GLCM cluster tendency	✓	✓	✓
HHL GLCM cluster shade	✓		

Feature name	NSCLC	HNSCC	MPM
HHL GLCM cluster prominence	✓	✓	✓
HHL m_GLCM energy	✓	✓	
HHL m_GLCM entropy	✓	✓	✓
HHL m_GLCM contrast	✓	✓	✓
HHL m_GLCM correlation	✓		
HHL m_GLCM homogeneity	✓	✓	
HHL m_GLCM homogeneity normalized	✓	✓	
HHL m_GLCM inverse difference	✓	✓	
HHL m_GLCM inverse difference normalized	✓	✓	
HHL m_GLCM variance	✓	✓	✓
HHL m_GLCM sum of average	✓		✓
HHL m_GLCM sum of entropy	✓	✓	✓
HHL m_GLCM sum of variance	✓	✓	✓
HHL m_GLCM difference entropy	✓	✓	✓
HHL m_GLCM difference variance	✓	✓	✓
HHL m_GLCM information measures of correlation 1	✓	✓	
HHL m_GLCM information measures of correlation 2	✓	✓	
HHL m_GLCM maximal correlation coefficient	✓	✓	
HHL m_GLCM joint maximum	✓	✓	
HHL m_GLCM joint average	✓		✓
HHL m_GLCM difference average	✓	✓	✓
HHL m_GLCM dissimilarity	✓	✓	✓
HHL m_GLCM inverse variance	✓	✓	
HHL m_GLCM autocorrelation	✓		✓
HHL m_GLCM cluster tendency	✓	✓	✓
HHL m_GLCM cluster shade	✓		
HHL m_GLCM cluster prominence	✓	✓	✓
HHL NGTDM coarseness	✓	✓	
HHL NGTDM contrast	✓	✓	
HHL NGTDM busyness			✓
HHL NGTDM complexity	✓	✓	✓
HHL NGTDM strength	✓		
HHL GRLM gray level non-uniformity	✓	✓	✓
HHL GRLM gray level non-uniformity normalized	✓	✓	✓
HHL GRLM zone size non-uniformity	✓	✓	✓
HHL GRLM zone size non-uniformity normalized	✓	✓	
HHL GRLM short runs emphasis	✓	✓	
HHL GRLM long runs emphasis	✓	✓	
HHL GRLM low gray level run emphasis			

Feature name	NSCLC	HNSCC	MPM
HHL GRLM high gray level run emphasis	✓		✓
HHL GRLM short run low gray level emphasis			
HHL GRLM short run high gray level emphasis	✓		✓
HHL GRLM long run low gray level emphasis			
HHL GRLM long run high gray level emphasis	✓	✓	✓
HHL GRLM run percentage	✓	✓	
HHL GRLM gray level variance	✓	✓	✓
HHL GRLM run length variance	✓	✓	
HHL GRLM run entropy	✓	✓	✓
HHL m_GRLM gray level non-uniformity	✓	✓	✓
HHL m_GRLM gray level non-uniformity normalized	✓	✓	✓
HHL m_GRLM zone size non-uniformity	✓	✓	
HHL m_GRLM zone size non-uniformity normalized	✓	✓	
HHL m_GRLM short runs emphasis	✓	✓	
HHL m_GRLM long runs emphasis	✓	✓	
HHL m_GRLM low gray level run emphasis			
HHL m_GRLM high gray level run emphasis	✓		✓
HHL m_GRLM short run low gray level emphasis			
HHL m_GRLM short run high gray level emphasis	✓		✓
HHL m_GRLM long run low gray level emphasis			
HHL m_GRLM long run high gray level emphasis	✓	✓	✓
HHL m_GRLM run percentage	✓	✓	
HHL m_GRLM gray level variance	✓	✓	✓
HHL m_GRLM run length variance	✓	✓	
HHL m_GRLM run entropy	✓	✓	✓
HHL GLSZM gray level non-uniformity	✓	✓	✓
HHL GLSZM gray level non-uniformity normalized	✓	✓	✓
HHL GLSZM zone size non-uniformity	✓	✓	✓
HHL GLSZM zone size non-uniformity normalized			
HHL GLSZM small zone emphasis			
HHL GLSZM large zone emphasis	✓	✓	
HHL GLSZM low gray level zone emphasis			
HHL GLSZM high gray level zone emphasis	✓		✓
HHL GLSZM small zone low gray level emphasis			
HHL GLSZM small zone high gray level emphasis	✓	✓	✓
HHL GLSZM large zone low gray level emphasis			
HHL GLSZM large zone high gray level emphasis	✓	✓	
HHL GLSZM zone percentage	✓	✓	
HHL GLSZM gray level variance	✓	✓	✓
HHL GLSZM zone size variance	✓	✓	

Feature name	NSCLC	HNSCC	MPM
HHL GLSZM zone size entropy	✓	✓	
HHL GLDZM gray level non-uniformity	✓	✓	✓
HHL GLDZM gray level non-uniformity normalized	✓	✓	✓
HHL GLDZM zone size non-uniformity	✓	✓	
HHL GLDZM zone size non-uniformity normalized	✓		
HHL GLDZM small distance emphasis	✓		
HHL GLDZM large distance emphasis	✓	✓	
HHL GLDZM low gray level zone emphasis			
HHL GLDZM high gray level zone emphasis	✓		✓
HHL GLDZM small distance low gray level emphasis			
HHL GLDZM small distance high gray level emphasis	✓		✓
HHL GLDZM large distance low gray level emphasis			
HHL GLDZM large distance high gray level emphasis	✓	✓	
HHL GLDZM zone percentage	✓	✓	
HHL GLDZM gray level variance	✓	✓	✓
HHL GLDZM zone distance variance	✓	✓	
HHL GLDZM zone distance entropy	✓	✓	
HHL NGLDM gray level non-uniformity	✓	✓	✓
HHL NGLDM gray level non-uniformity normalized	✓	✓	✓
HHL NGLDM dependence count non-uniformity	✓		✓
HHL NGLDM dependence count non-uniformity normalized	✓	✓	
HHL NGLDM low dependence emphasis	✓	✓	
HHL NGLDM high dependence emphasis	✓	✓	
HHL NGLDM low gray level count emphasis			
HHL NGLDM high gray level count emphasis	✓		✓
HHL NGLDM low dependence low gray level emphasis			
HHL NGLDM low dependence high gray level emphasis	✓	✓	✓
HHL NGLDM high dependence low gray level emphasis			✓
HHL NGLDM high dependence high gray level emphasis	✓	✓	
HHL NGLDM gray level variance	✓	✓	✓
HHL NGLDM dependence count variance	✓	✓	
HHL NGLDM dependence count entropy	✓	✓	
HHL NGLDM dependence count energy	✓	✓	
HLH intensity mean			
HLH intensity standard deviation	✓		✓
HLH intensity coefficient of variation			
HLH intensity skewness			
HLH intensity kurtosis	✓		
HLH intensity variance	✓		✓
HLH intensity median			✓

Feature name	NSCLC	HNSCC	MPM
HLH intensity percentile 10th	✓		✓
HLH intensity percentile 90th	✓	✓	✓
HLH intensity interquartile range	✓		✓
HLH intensity range	✓		✓
HLH intensity mean absolute deviation	✓	✓	✓
HLH intensity robust mean absolute deviation	✓	✓	✓
HLH intensity energy	✓	✓	✓
HLH intensity entropy	✓	✓	✓
HLH intensity root mean square	✓		✓
HLH intensity uniformity	✓	✓	
HLH GLCM energy	✓	✓	
HLH GLCM entropy	✓	✓	✓
HLH GLCM contrast	✓	✓	✓
HLH GLCM correlation			
HLH GLCM homogeneity	✓	✓	
HLH GLCM homogeneity normalized	✓		
HLH GLCM inverse difference	✓	✓	
HLH GLCM inverse difference normalized	✓		
HLH GLCM variance	✓	✓	✓
HLH GLCM sum of average	✓		✓
HLH GLCM sum of entropy	✓	✓	✓
HLH GLCM sum of variance	✓	✓	✓
HLH GLCM difference entropy	✓	✓	✓
HLH GLCM difference variance	✓	✓	✓
HLH GLCM information measures of correlation 1	✓		
HLH GLCM information measures of correlation 2	✓	✓	
HLH GLCM maximal correlation coefficient			
HLH GLCM joint maximum	✓	✓	
HLH GLCM joint average	✓		✓
HLH GLCM difference average	✓	✓	✓
HLH GLCM dissimilarity	✓	✓	✓
HLH GLCM inverse variance	✓		✓
HLH GLCM autocorrelation	✓		✓
HLH GLCM cluster tendency	✓	✓	✓
HLH GLCM cluster shade			
HLH GLCM cluster prominence	✓		✓
HLH m_GLCM energy	✓	✓	
HLH m_GLCM entropy	✓	✓	✓
HLH m_GLCM contrast	✓	✓	✓
HLH m_GLCM correlation			

Feature name	NSCLC	HNSCC	MPM
HLH m_GLCM homogeneity	✓	✓	
HLH m_GLCM homogeneity normalized	✓		
HLH m_GLCM inverse difference	✓	✓	
HLH m_GLCM inverse difference normalized	✓		
HLH m_GLCM variance	✓	✓	✓
HLH m_GLCM sum of average	✓		✓
HLH m_GLCM sum of entropy	✓	✓	✓
HLH m_GLCM sum of variance	✓	✓	✓
HLH m_GLCM difference entropy	✓	✓	✓
HLH m_GLCM difference variance	✓	✓	✓
HLH m_GLCM information measures of correlation 1	✓		
HLH m_GLCM information measures of correlation 2	✓		
HLH m_GLCM maximal correlation coefficient			
HLH m_GLCM joint maximum	✓	✓	
HLH m_GLCM joint average	✓		✓
HLH m_GLCM difference average	✓	✓	✓
HLH m_GLCM dissimilarity	✓	✓	✓
HLH m_GLCM inverse variance	✓		✓
HLH m_GLCM autocorrelation	✓		✓
HLH m_GLCM cluster tendency	✓	✓	✓
HLH m_GLCM cluster shade			
HLH m_GLCM cluster prominence	✓		✓
HLH NGTDM coarseness	✓	✓	
HLH NGTDM contrast	✓		
HLH NGTDM busyness	✓		✓
HLH NGTDM complexity	✓	✓	✓
HLH NGTDM strength	✓		
HLH GRLM gray level non-uniformity	✓	✓	✓
HLH GRLM gray level non-uniformity normalized	✓		
HLH GRLM zone size non-uniformity	✓	✓	✓
HLH GRLM zone size non-uniformity normalized	✓	✓	
HLH GRLM short runs emphasis	✓	✓	
HLH GRLM long runs emphasis	✓	✓	
HLH GRLM low gray level run emphasis			
HLH GRLM high gray level run emphasis	✓		✓
HLH GRLM short run low gray level emphasis			
HLH GRLM short run high gray level emphasis	✓		✓
HLH GRLM long run low gray level emphasis			
HLH GRLM long run high gray level emphasis	✓		
HLH GRLM run percentage	✓	✓	

Feature name	NSCLC	HNSCC	MPM
HLH GRLM gray level variance	✓		✓
HLH GRLM run length variance	✓	✓	
HLH GRLM run entropy	✓	✓	✓
HLH m_GRLM gray level non-uniformity	✓	✓	✓
HLH m_GRLM gray level non-uniformity normalized	✓		
HLH m_GRLM zone size non-uniformity	✓	✓	
HLH m_GRLM zone size non-uniformity normalized	✓	✓	
HLH m_GRLM short runs emphasis	✓	✓	
HLH m_GRLM long runs emphasis	✓	✓	
HLH m_GRLM low gray level run emphasis			
HLH m_GRLM high gray level run emphasis	✓		✓
HLH m_GRLM short run low gray level emphasis			
HLH m_GRLM short run high gray level emphasis	✓		✓
HLH m_GRLM long run low gray level emphasis			
HLH m_GRLM long run high gray level emphasis	✓		
HLH m_GRLM run percentage	✓	✓	
HLH m_GRLM gray level variance	✓		✓
HLH m_GRLM run length variance	✓	✓	
HLH m_GRLM run entropy	✓		✓
HLH GLSZM gray level non-uniformity	✓	✓	✓
HLH GLSZM gray level non-uniformity normalized	✓		✓
HLH GLSZM zone size non-uniformity	✓	✓	✓
HLH GLSZM zone size non-uniformity normalized			
HLH GLSZM small zone emphasis			
HLH GLSZM large zone emphasis	✓	✓	
HLH GLSZM low gray level zone emphasis			
HLH GLSZM high gray level zone emphasis	✓		✓
HLH GLSZM small zone low gray level emphasis			
HLH GLSZM small zone high gray level emphasis	✓		✓
HLH GLSZM large zone low gray level emphasis	✓		
HLH GLSZM large zone high gray level emphasis	✓	✓	
HLH GLSZM zone percentage	✓		
HLH GLSZM gray level variance	✓		✓
HLH GLSZM zone size variance	✓	✓	
HLH GLSZM zone size entropy	✓		✓
HLH GLDZM gray level non-uniformity	✓	✓	✓
HLH GLDZM gray level non-uniformity normalized	✓		✓
HLH GLDZM zone size non-uniformity	✓		✓
HLH GLDZM zone size non-uniformity normalized	✓	✓	
HLH GLDZM small distance emphasis	✓		

Feature name	NSCLC	HNSCC	MPM
HLH GLDZM large distance emphasis	✓		
HLH GLDZM low gray level zone emphasis			
HLH GLDZM high gray level zone emphasis	✓		✓
HLH GLDZM small distance low gray level emphasis		✓	
HLH GLDZM small distance high gray level emphasis	✓		✓
HLH GLDZM large distance low gray level emphasis			
HLH GLDZM large distance high gray level emphasis	✓		
HLH GLDZM zone percentage	✓		
HLH GLDZM gray level variance	✓		✓
HLH GLDZM zone distance variance	✓		
HLH GLDZM zone distance entropy	✓	✓	✓
HLH NGLDM gray level non-uniformity	✓	✓	✓
HLH NGLDM gray level non-uniformity normalized	✓	✓	
HLH NGLDM dependence count non-uniformity	✓	✓	✓
HLH NGLDM dependence count non-uniformity normalized	✓	✓	
HLH NGLDM low dependence emphasis	✓	✓	
HLH NGLDM high dependence emphasis	✓	✓	
HLH NGLDM low gray level count emphasis			
HLH NGLDM high gray level count emphasis	✓		✓
HLH NGLDM low dependence low gray level emphasis			
HLH NGLDM low dependence high gray level emphasis	✓		✓
HLH NGLDM high dependence low gray level emphasis	✓		
HLH NGLDM high dependence high gray level emphasis	✓		
HLH NGLDM gray level variance	✓		✓
HLH NGLDM dependence count variance	✓		
HLH NGLDM dependence count entropy	✓	✓	✓
HLH NGLDM dependence count energy	✓	✓	✓
HLL intensity mean	✓	✓	
HLL intensity standard deviation	✓	✓	
HLL intensity coefficient of variation			
HLL intensity skewness	✓	✓	✓
HLL intensity kurtosis	✓		
HLL intensity variance	✓	✓	
HLL intensity median			
HLL intensity percentile 10th	✓	✓	
HLL intensity percentile 90th	✓	✓	
HLL intensity interquartile range	✓	✓	
HLL intensity range	✓	✓	
HLL intensity mean absolute deviation	✓	✓	
HLL intensity robust mean absolute deviation	✓	✓	

Feature name	NSCLC	HNSCC	MPM
HLL intensity energy	✓		
HLL intensity entropy	✓	✓	✓
HLL intensity root mean square	✓	✓	
HLL intensity uniformity	✓	✓	
HLL GLCM energy	✓	✓	✓
HLL GLCM entropy	✓	✓	✓
HLL GLCM contrast	✓	✓	
HLL GLCM correlation			
HLL GLCM homogeneity	✓	✓	
HLL GLCM homogeneity normalized	✓	✓	
HLL GLCM inverse difference	✓	✓	
HLL GLCM inverse difference normalized	✓	✓	
HLL GLCM variance	✓	✓	
HLL GLCM sum of average			
HLL GLCM sum of entropy	✓	✓	✓
HLL GLCM sum of variance	✓	✓	
HLL GLCM difference entropy	✓	✓	✓
HLL GLCM difference variance	✓	✓	
HLL GLCM information measures of correlation 1	✓	✓	
HLL GLCM information measures of correlation 2	✓	✓	✓
HLL GLCM maximal correlation coefficient	✓		
HLL GLCM joint maximum	✓	✓	✓
HLL GLCM joint average			
HLL GLCM difference average	✓	✓	
HLL GLCM dissimilarity	✓	✓	
HLL GLCM inverse variance	✓	✓	
HLL GLCM autocorrelation			
HLL GLCM cluster tendency	✓	✓	
HLL GLCM cluster shade	✓		
HLL GLCM cluster prominence	✓		
HLL m_GLCM energy	✓	✓	
HLL m_GLCM entropy	✓	✓	✓
HLL m_GLCM contrast	✓	✓	
HLL m_GLCM correlation			
HLL m_GLCM homogeneity	✓	✓	
HLL m_GLCM homogeneity normalized	✓	✓	
HLL m_GLCM inverse difference	✓	✓	
HLL m_GLCM inverse difference normalized	✓	✓	
HLL m_GLCM variance	✓	✓	
HLL m_GLCM sum of average			

Feature name	NSCLC	HNSCC	MPM
HLL m_GLCM sum of entropy	✓	✓	
HLL m_GLCM sum of variance	✓	✓	
HLL m_GLCM difference entropy	✓	✓	
HLL m_GLCM difference variance	✓	✓	
HLL m_GLCM information measures of correlation 1	✓	✓	
HLL m_GLCM information measures of correlation 2	✓	✓	
HLL m_GLCM maximal correlation coefficient			
HLL m_GLCM joint maximum	✓	✓	
HLL m_GLCM joint average			
HLL m_GLCM difference average	✓	✓	
HLL m_GLCM dissimilarity	✓	✓	
HLL m_GLCM inverse variance	✓	✓	
HLL m_GLCM autocorrelation			
HLL m_GLCM cluster tendency	✓	✓	
HLL m_GLCM cluster shade	✓		
HLL m_GLCM cluster prominence	✓		
HLL NGTDM coarseness	✓	✓	
HLL NGTDM contrast	✓		
HLL NGTDM busyness	✓		✓
HLL NGTDM complexity	✓	✓	✓
HLL NGTDM strength	✓		
HLL GRLM gray level non-uniformity	✓	✓	✓
HLL GRLM gray level non-uniformity normalized	✓	✓	
HLL GRLM zone size non-uniformity	✓	✓	✓
HLL GRLM zone size non-uniformity normalized	✓	✓	
HLL GRLM short runs emphasis	✓	✓	
HLL GRLM long runs emphasis	✓	✓	
HLL GRLM low gray level run emphasis			
HLL GRLM high gray level run emphasis			
HLL GRLM short run low gray level emphasis			
HLL GRLM short run high gray level emphasis			
HLL GRLM long run low gray level emphasis			
HLL GRLM long run high gray level emphasis			
HLL GRLM run percentage	✓	✓	
HLL GRLM gray level variance	✓	✓	
HLL GRLM run length variance	✓	✓	
HLL GRLM run entropy	✓	✓	✓
HLL m_GRLM gray level non-uniformity	✓	✓	✓
HLL m_GRLM gray level non-uniformity normalized	✓	✓	
HLL m_GRLM zone size non-uniformity	✓	✓	

Feature name	NSCLC	HNSCC	MPM
HLL m_GRLM zone size non-uniformity normalized	✓	✓	
HLL m_GRLM short runs emphasis	✓	✓	
HLL m_GRLM long runs emphasis	✓	✓	
HLL m_GRLM low gray level run emphasis			
HLL m_GRLM high gray level run emphasis			
HLL m_GRLM short run low gray level emphasis			
HLL m_GRLM short run high gray level emphasis			
HLL m_GRLM long run low gray level emphasis			
HLL m_GRLM long run high gray level emphasis			
HLL m_GRLM run percentage	✓	✓	
HLL m_GRLM gray level variance	✓	✓	
HLL m_GRLM run length variance	✓	✓	
HLL m_GRLM run entropy	✓	✓	✓
HLL GLSZM gray level non-uniformity	✓	✓	✓
HLL GLSZM gray level non-uniformity normalized	✓	✓	✓
HLL GLSZM zone size non-uniformity	✓		✓
HLL GLSZM zone size non-uniformity normalized			
HLL GLSZM small zone emphasis			
HLL GLSZM large zone emphasis	✓	✓	
HLL GLSZM low gray level zone emphasis			
HLL GLSZM high gray level zone emphasis			
HLL GLSZM small zone low gray level emphasis			
HLL GLSZM small zone high gray level emphasis			
HLL GLSZM large zone low gray level emphasis			
HLL GLSZM large zone high gray level emphasis	✓	✓	
HLL GLSZM zone percentage	✓	✓	
HLL GLSZM gray level variance	✓	✓	
HLL GLSZM zone size variance	✓	✓	
HLL GLSZM zone size entropy	✓	✓	✓
HLL GLDZM gray level non-uniformity	✓	✓	✓
HLL GLDZM gray level non-uniformity normalized	✓	✓	✓
HLL GLDZM zone size non-uniformity	✓		
HLL GLDZM zone size non-uniformity normalized	✓		
HLL GLDZM small distance emphasis			
HLL GLDZM large distance emphasis	✓		
HLL GLDZM low gray level zone emphasis			
HLL GLDZM high gray level zone emphasis			
HLL GLDZM small distance low gray level emphasis			
HLL GLDZM small distance high gray level emphasis			
HLL GLDZM large distance low gray level emphasis			
HLL GLDZM large distance high gray level emphasis			
HLL GLDZM zone percentage	✓	✓	

Feature name	NSCLC	HNSCC	MPM
HLL GLDZM gray level variance	✓	✓	
HLL GLDZM zone distance variance	✓		
HLL GLDZM zone distance entropy	✓	✓	
HLL NGLDM gray level non-uniformity	✓	✓	✓
HLL NGLDM gray level non-uniformity normalized	✓	✓	
HLL NGLDM dependence count non-uniformity	✓		✓
HLL NGLDM dependence count non-uniformity normalized	✓	✓	
HLL NGLDM low dependence emphasis	✓	✓	
HLL NGLDM high dependence emphasis	✓	✓	
HLL NGLDM low gray level count emphasis			
HLL NGLDM high gray level count emphasis			
HLL NGLDM low dependence low gray level emphasis			
HLL NGLDM low dependence high gray level emphasis			
HLL NGLDM high dependence low gray level emphasis			✓
HLL NGLDM high dependence high gray level emphasis		✓	
HLL NGLDM gray level variance	✓	✓	
HLL NGLDM dependence count variance	✓	✓	
HLL NGLDM dependence count entropy	✓	✓	✓
HLL NGLDM dependence count energy	✓	✓	✓
LHH intensity mean			
LHH intensity standard deviation	✓		✓
LHH intensity coefficient of variation			
LHH intensity skewness	✓		
LHH intensity kurtosis	✓		✓
LHH intensity variance	✓	✓	✓
LHH intensity median			
LHH intensity percentile 10th	✓	✓	✓
LHH intensity percentile 90th	✓	✓	✓
LHH intensity interquartile range	✓	✓	✓
LHH intensity range	✓		✓
LHH intensity mean absolute deviation	✓	✓	✓
LHH intensity robust mean absolute deviation	✓	✓	✓
LHH intensity energy	✓		✓
LHH intensity entropy	✓	✓	✓
LHH intensity root mean square	✓		✓
LHH intensity uniformity	✓	✓	
LHH GLCM energy	✓	✓	
LHH GLCM entropy	✓	✓	✓
LHH GLCM contrast	✓	✓	✓
LHH GLCM correlation	✓		

Feature name	NSCLC	HNSCC	MPM
LHH GLCM homogeneity	✓	✓	✓
LHH GLCM homogeneity normalized	✓	✓	
LHH GLCM inverse difference	✓	✓	✓
LHH GLCM inverse difference normalized	✓	✓	
LHH GLCM variance	✓	✓	✓
LHH GLCM sum of average	✓		✓
LHH GLCM sum of entropy	✓	✓	✓
LHH GLCM sum of variance	✓	✓	✓
LHH GLCM difference entropy	✓	✓	✓
LHH GLCM difference variance	✓	✓	✓
LHH GLCM information measures of correlation 1	✓	✓	
LHH GLCM information measures of correlation 2	✓	✓	
LHH GLCM maximal correlation coefficient	✓		
LHH GLCM joint maximum	✓		
LHH GLCM joint average	✓		✓
LHH GLCM difference average	✓	✓	✓
LHH GLCM dissimilarity	✓	✓	✓
LHH GLCM inverse variance	✓		✓
LHH GLCM autocorrelation	✓		✓
LHH GLCM cluster tendency	✓	✓	✓
LHH GLCM cluster shade	✓		
LHH GLCM cluster prominence	✓		✓
LHH m_GLCM energy	✓	✓	
LHH m_GLCM entropy	✓	✓	✓
LHH m_GLCM contrast	✓	✓	✓
LHH m_GLCM correlation	✓		
LHH m_GLCM homogeneity	✓	✓	✓
LHH m_GLCM homogeneity normalized	✓	✓	
LHH m_GLCM inverse difference	✓	✓	✓
LHH m_GLCM inverse difference normalized	✓	✓	
LHH m_GLCM variance	✓	✓	✓
LHH m_GLCM sum of average	✓		✓
LHH m_GLCM sum of entropy	✓	✓	✓
LHH m_GLCM sum of variance	✓	✓	✓
LHH m_GLCM difference entropy	✓	✓	✓
LHH m_GLCM difference variance	✓	✓	✓
LHH m_GLCM information measures of correlation 1	✓		
LHH m_GLCM information measures of correlation 2	✓		
LHH m_GLCM maximal correlation coefficient			

Feature name	NSCLC	HNSCC	MPM
LHH m_GLCM joint maximum	✓		
LHH m_GLCM joint average	✓		✓
LHH m_GLCM difference average	✓	✓	✓
LHH m_GLCM dissimilarity	✓	✓	✓
LHH m_GLCM inverse variance	✓		✓
LHH m_GLCM autocorrelation	✓		✓
LHH m_GLCM cluster tendency	✓	✓	✓
LHH m_GLCM cluster shade	✓		
LHH m_GLCM cluster prominence	✓		✓
LHH NGTDM coarseness	✓	✓	
LHH NGTDM contrast	✓	✓	
LHH NGTDM busyness	✓		
LHH NGTDM complexity	✓		✓
LHH NGTDM strength	✓		
LHH GRLM gray level non-uniformity	✓	✓	✓
LHH GRLM gray level non-uniformity normalized	✓	✓	✓
LHH GRLM zone size non-uniformity	✓		✓
LHH GRLM zone size non-uniformity normalized	✓	✓	
LHH GRLM short runs emphasis	✓	✓	
LHH GRLM long runs emphasis	✓	✓	
LHH GRLM low gray level run emphasis	✓		
LHH GRLM high gray level run emphasis	✓		✓
LHH GRLM short run low gray level emphasis	✓		
LHH GRLM short run high gray level emphasis	✓		✓
LHH GRLM long run low gray level emphasis	✓		
LHH GRLM long run high gray level emphasis	✓		✓
LHH GRLM run percentage	✓	✓	
LHH GRLM gray level variance	✓		✓
LHH GRLM run length variance	✓		
LHH GRLM run entropy	✓		✓
LHH m_GRLM gray level non-uniformity	✓	✓	✓
LHH m_GRLM gray level non-uniformity normalized	✓	✓	✓
LHH m_GRLM zone size non-uniformity	✓		
LHH m_GRLM zone size non-uniformity normalized	✓	✓	
LHH m_GRLM short runs emphasis	✓	✓	
LHH m_GRLM long runs emphasis	✓	✓	
LHH m_GRLM low gray level run emphasis	✓		
LHH m_GRLM high gray level run emphasis	✓		✓
LHH m_GRLM short run low gray level emphasis	✓		

Feature name	NSCLC	HNSCC	MPM
LHH m_GRLM short run high gray level emphasis	✓		✓
LHH m_GRLM long run low gray level emphasis	✓		
LHH m_GRLM long run high gray level emphasis	✓		✓
LHH m_GRLM run percentage	✓	✓	
LHH m_GRLM gray level variance	✓		✓
LHH m_GRLM run length variance	✓		
LHH m_GRLM run entropy	✓		✓
LHH GLSZM gray level non-uniformity	✓	✓	✓
LHH GLSZM gray level non-uniformity normalized	✓		
LHH GLSZM zone size non-uniformity	✓	✓	✓
LHH GLSZM zone size non-uniformity normalized			
LHH GLSZM small zone emphasis			
LHH GLSZM large zone emphasis	✓	✓	
LHH GLSZM low gray level zone emphasis	✓		
LHH GLSZM high gray level zone emphasis	✓		✓
LHH GLSZM small zone low gray level emphasis	✓		
LHH GLSZM small zone high gray level emphasis	✓		✓
LHH GLSZM large zone low gray level emphasis	✓		
LHH GLSZM large zone high gray level emphasis	✓	✓	
LHH GLSZM zone percentage	✓	✓	
LHH GLSZM gray level variance	✓		✓
LHH GLSZM zone size variance	✓	✓	
LHH GLSZM zone size entropy	✓		
LHH GLDZM gray level non-uniformity	✓	✓	✓
LHH GLDZM gray level non-uniformity normalized	✓		
LHH GLDZM zone size non-uniformity	✓	✓	✓
LHH GLDZM zone size non-uniformity normalized			
LHH GLDZM small distance emphasis			
LHH GLDZM large distance emphasis	✓		
LHH GLDZM low gray level zone emphasis	✓		
LHH GLDZM high gray level zone emphasis	✓		✓
LHH GLDZM small distance low gray level emphasis	✓		
LHH GLDZM small distance high gray level emphasis	✓		✓
LHH GLDZM large distance low gray level emphasis	✓		
LHH GLDZM large distance high gray level emphasis	✓		
LHH GLDZM zone percentage	✓	✓	
LHH GLDZM gray level variance	✓		✓
LHH GLDZM zone distance variance	✓		
LHH GLDZM zone distance entropy	✓		
LHH NGLDM gray level non-uniformity	✓	✓	✓

Feature name	NSCLC	HNSCC	MPM
LHH NGLDM gray level non-uniformity normalized	✓	✓	
LHH NGLDM dependence count non-uniformity	✓	✓	✓
LHH NGLDM dependence count non-uniformity normalized	✓	✓	
LHH NGLDM low dependence emphasis	✓	✓	
LHH NGLDM high dependence emphasis	✓	✓	
LHH NGLDM low gray level count emphasis	✓		
LHH NGLDM high gray level count emphasis	✓		✓
LHH NGLDM low dependence low gray level emphasis	✓	✓	
LHH NGLDM low dependence high gray level emphasis	✓		✓
LHH NGLDM high dependence low gray level emphasis	✓		
LHH NGLDM high dependence high gray level emphasis	✓		✓
LHH NGLDM gray level variance	✓	✓	✓
LHH NGLDM dependence count variance	✓		
LHH NGLDM dependence count entropy	✓		
LHH NGLDM dependence count energy	✓		
LHL intensity mean	✓		
LHL intensity standard deviation	✓		✓
LHL intensity coefficient of variation			
LHL intensity skewness	✓		
LHL intensity kurtosis	✓	✓	
LHL intensity variance	✓		✓
LHL intensity median			
LHL intensity percentile 10th	✓		✓
LHL intensity percentile 90th	✓	✓	✓
LHL intensity interquartile range	✓	✓	✓
LHL intensity range	✓		
LHL intensity mean absolute deviation	✓	✓	✓
LHL intensity robust mean absolute deviation	✓	✓	✓
LHL intensity energy	✓		✓
LHL intensity entropy	✓	✓	✓
LHL intensity root mean square	✓		✓
LHL intensity uniformity	✓	✓	✓
LHL GLCM energy	✓	✓	
LHL GLCM entropy	✓	✓	
LHL GLCM contrast	✓	✓	✓
LHL GLCM correlation	✓		
LHL GLCM homogeneity	✓	✓	
LHL GLCM homogeneity normalized	✓	✓	
LHL GLCM inverse difference	✓	✓	

Feature name	NSCLC	HNSCC	MPM
LHL GLCM inverse difference normalized	✓	✓	
LHL GLCM variance	✓	✓	✓
LHL GLCM sum of average	✓		
LHL GLCM sum of entropy	✓	✓	✓
LHL GLCM sum of variance	✓	✓	✓
LHL GLCM difference entropy	✓	✓	✓
LHL GLCM difference variance	✓		✓
LHL GLCM information measures of correlation 1	✓	✓	
LHL GLCM information measures of correlation 2	✓	✓	
LHL GLCM maximal correlation coefficient	✓		
LHL GLCM joint maximum	✓	✓	✓
LHL GLCM joint average	✓		
LHL GLCM difference average	✓	✓	✓
LHL GLCM dissimilarity	✓	✓	✓
LHL GLCM inverse variance	✓	✓	✓
LHL GLCM autocorrelation	✓		
LHL GLCM cluster tendency	✓	✓	✓
LHL GLCM cluster shade	✓		
LHL GLCM cluster prominence	✓		
LHL m_GLCM energy	✓	✓	
LHL m_GLCM entropy	✓	✓	✓
LHL m_GLCM contrast	✓	✓	✓
LHL m_GLCM correlation	✓		
LHL m_GLCM homogeneity	✓	✓	
LHL m_GLCM homogeneity normalized	✓	✓	
LHL m_GLCM inverse difference	✓	✓	
LHL m_GLCM inverse difference normalized	✓	✓	
LHL m_GLCM variance	✓	✓	✓
LHL m_GLCM sum of average	✓		
LHL m_GLCM sum of entropy	✓	✓	✓
LHL m_GLCM sum of variance	✓	✓	✓
LHL m_GLCM difference entropy	✓	✓	✓
LHL m_GLCM difference variance	✓		✓
LHL m_GLCM information measures of correlation 1	✓		
LHL m_GLCM information measures of correlation 2	✓	✓	
LHL m_GLCM maximal correlation coefficient	✓		
LHL m_GLCM joint maximum	✓	✓	
LHL m_GLCM joint average	✓		
LHL m_GLCM difference average	✓	✓	✓

Feature name	NSCLC	HNSCC	MPM
LHL m_GLCM dissimilarity	✓	✓	✓
LHL m_GLCM inverse variance	✓	✓	✓
LHL m_GLCM autocorrelation	✓		
LHL m_GLCM cluster tendency	✓	✓	✓
LHL m_GLCM cluster shade	✓		
LHL m_GLCM cluster prominence	✓		
LHL NGTDM coarseness	✓	✓	
LHL NGTDM contrast	✓	✓	
LHL NGTDM busyness	✓		
LHL NGTDM complexity	✓		
LHL NGTDM strength	✓		
LHL GRLM gray level non-uniformity	✓	✓	✓
LHL GRLM gray level non-uniformity normalized	✓	✓	✓
LHL GRLM zone size non-uniformity	✓	✓	✓
LHL GRLM zone size non-uniformity normalized	✓	✓	
LHL GRLM short runs emphasis	✓	✓	
LHL GRLM long runs emphasis	✓	✓	
LHL GRLM low gray level run emphasis	✓		
LHL GRLM high gray level run emphasis	✓		
LHL GRLM short run low gray level emphasis	✓	✓	
LHL GRLM short run high gray level emphasis	✓		
LHL GRLM long run low gray level emphasis	✓		
LHL GRLM long run high gray level emphasis	✓		
LHL GRLM run percentage	✓	✓	
LHL GRLM gray level variance	✓		✓
LHL GRLM run length variance	✓	✓	
LHL GRLM run entropy	✓	✓	✓
LHL m_GRLM gray level non-uniformity	✓	✓	✓
LHL m_GRLM gray level non-uniformity normalized	✓	✓	✓
LHL m_GRLM zone size non-uniformity	✓	✓	
LHL m_GRLM zone size non-uniformity normalized	✓	✓	
LHL m_GRLM short runs emphasis	✓	✓	
LHL m_GRLM long runs emphasis	✓	✓	
LHL m_GRLM low gray level run emphasis	✓		
LHL m_GRLM high gray level run emphasis	✓		
LHL m_GRLM short run low gray level emphasis	✓	✓	
LHL m_GRLM short run high gray level emphasis	✓		
LHL m_GRLM long run low gray level emphasis	✓		
LHL m_GRLM long run high gray level emphasis	✓		

Feature name	NSCLC	HNSCC	MPM
LHL m_GRLM run percentage	✓	✓	
LHL m_GRLM gray level variance	✓		✓
LHL m_GRLM run length variance	✓	✓	
LHL m_GRLM run entropy	✓	✓	✓
LHL GLSZM gray level non-uniformity	✓	✓	✓
LHL GLSZM gray level non-uniformity normalized	✓	✓	✓
LHL GLSZM zone size non-uniformity	✓		✓
LHL GLSZM zone size non-uniformity normalized			
LHL GLSZM small zone emphasis			
LHL GLSZM large zone emphasis	✓	✓	
LHL GLSZM low gray level zone emphasis	✓		
LHL GLSZM high gray level zone emphasis	✓		
LHL GLSZM small zone low gray level emphasis	✓		
LHL GLSZM small zone high gray level emphasis	✓		
LHL GLSZM large zone low gray level emphasis	✓		
LHL GLSZM large zone high gray level emphasis	✓		
LHL GLSZM zone percentage	✓	✓	
LHL GLSZM gray level variance	✓		✓
LHL GLSZM zone size variance	✓	✓	
LHL GLSZM zone size entropy	✓	✓	
LHL GLDZM gray level non-uniformity	✓	✓	✓
LHL GLDZM gray level non-uniformity normalized	✓	✓	✓
LHL GLDZM zone size non-uniformity	✓		
LHL GLDZM zone size non-uniformity normalized	✓	✓	
LHL GLDZM small distance emphasis	✓	✓	
LHL GLDZM large distance emphasis	✓	✓	
LHL GLDZM low gray level zone emphasis	✓		
LHL GLDZM high gray level zone emphasis	✓		
LHL GLDZM small distance low gray level emphasis	✓		
LHL GLDZM small distance high gray level emphasis	✓		
LHL GLDZM large distance low gray level emphasis			
LHL GLDZM large distance high gray level emphasis	✓		
LHL GLDZM zone percentage	✓	✓	
LHL GLDZM gray level variance	✓		✓
LHL GLDZM zone distance variance	✓	✓	
LHL GLDZM zone distance entropy	✓	✓	
LHL NGLDM gray level non-uniformity	✓	✓	✓
LHL NGLDM gray level non-uniformity normalized	✓	✓	✓
LHL NGLDM dependence count non-uniformity	✓		✓
LHL NGLDM dependence count non-uniformity normalized	✓	✓	

Feature name	NSCLC	HNSCC	MPM
LHL NGLDM low dependence emphasis	✓	✓	
LHL NGLDM high dependence emphasis	✓	✓	
LHL NGLDM low gray level count emphasis	✓	✓	
LHL NGLDM high gray level count emphasis	✓		
LHL NGLDM low dependence low gray level emphasis	✓	✓	
LHL NGLDM low dependence high gray level emphasis	✓		
LHL NGLDM high dependence low gray level emphasis	✓		
LHL NGLDM high dependence high gray level emphasis	✓		✓
LHL NGLDM gray level variance	✓		✓
LHL NGLDM dependence count variance	✓	✓	
LHL NGLDM dependence count entropy	✓	✓	
LHL NGLDM dependence count energy	✓	✓	
LLH intensity mean			
LLH intensity standard deviation	✓		✓
LLH intensity coefficient of variation			
LLH intensity skewness			
LLH intensity kurtosis	✓		
LLH intensity variance	✓		✓
LLH intensity median	✓		
LLH intensity percentile 10th	✓		
LLH intensity percentile 90th			✓
LLH intensity interquartile range	✓	✓	✓
LLH intensity range	✓		✓
LLH intensity mean absolute deviation	✓		✓
LLH intensity robust mean absolute deviation	✓		✓
LLH intensity energy	✓		✓
LLH intensity entropy	✓	✓	✓
LLH intensity root mean square	✓		✓
LLH intensity uniformity	✓	✓	
LLH GLCM energy	✓	✓	
LLH GLCM entropy	✓	✓	✓
LLH GLCM contrast	✓		✓
LLH GLCM correlation	✓		
LLH GLCM homogeneity	✓	✓	
LLH GLCM homogeneity normalized	✓		
LLH GLCM inverse difference	✓	✓	
LLH GLCM inverse difference normalized	✓	✓	
LLH GLCM variance	✓		✓
LLH GLCM sum of average	✓		
LLH GLCM sum of entropy	✓	✓	✓

Feature name	NSCLC	HNSCC	MPM
LLH GLCM sum of variance	✓		✓
LLH GLCM difference entropy	✓	✓	✓
LLH GLCM difference variance	✓		✓
LLH GLCM information measures of correlation 1	✓	✓	
LLH GLCM information measures of correlation 2	✓	✓	
LLH GLCM maximal correlation coefficient	✓		
LLH GLCM joint maximum	✓	✓	
LLH GLCM joint average	✓		
LLH GLCM difference average	✓		✓
LLH GLCM dissimilarity	✓		✓
LLH GLCM inverse variance	✓	✓	
LLH GLCM autocorrelation	✓		
LLH GLCM cluster tendency	✓		✓
LLH GLCM cluster shade			
LLH GLCM cluster prominence	✓		✓
LLH m_GLCM energy	✓	✓	
LLH m_GLCM entropy	✓	✓	✓
LLH m_GLCM contrast	✓		✓
LLH m_GLCM correlation	✓		
LLH m_GLCM homogeneity	✓	✓	
LLH m_GLCM homogeneity normalized	✓		
LLH m_GLCM inverse difference	✓	✓	
LLH m_GLCM inverse difference normalized	✓	✓	
LLH m_GLCM variance	✓		✓
LLH m_GLCM sum of average	✓		
LLH m_GLCM sum of entropy	✓	✓	
LLH m_GLCM sum of variance	✓		✓
LLH m_GLCM difference entropy	✓	✓	
LLH m_GLCM difference variance	✓		✓
LLH m_GLCM information measures of correlation 1	✓		
LLH m_GLCM information measures of correlation 2	✓		
LLH m_GLCM maximal correlation coefficient			
LLH m_GLCM joint maximum	✓	✓	
LLH m_GLCM joint average	✓		
LLH m_GLCM difference average	✓		✓
LLH m_GLCM dissimilarity	✓		✓
LLH m_GLCM inverse variance	✓	✓	
LLH m_GLCM autocorrelation	✓		
LLH m_GLCM cluster tendency	✓		✓
LLH m_GLCM cluster shade			

Feature name	NSCLC	HNSCC	MPM
LLH m_GLCM cluster prominence	✓		✓
LLH NGTDM coarseness	✓	✓	
LLH NGTDM contrast	✓		
LLH NGTDM busyness			
LLH NGTDM complexity	✓		✓
LLH NGTDM strength	✓		
LLH GRLM gray level non-uniformity	✓	✓	✓
LLH GRLM gray level non-uniformity normalized	✓	✓	
LLH GRLM zone size non-uniformity	✓	✓	✓
LLH GRLM zone size non-uniformity normalized	✓	✓	
LLH GRLM short runs emphasis	✓	✓	
LLH GRLM long runs emphasis	✓	✓	
LLH GRLM low gray level run emphasis	✓	✓	
LLH GRLM high gray level run emphasis	✓		
LLH GRLM short run low gray level emphasis	✓	✓	
LLH GRLM short run high gray level emphasis	✓		
LLH GRLM long run low gray level emphasis	✓		
LLH GRLM long run high gray level emphasis	✓		
LLH GRLM run percentage	✓	✓	
LLH GRLM gray level variance	✓		✓
LLH GRLM run length variance	✓	✓	
LLH GRLM run entropy			✓
LLH m_GRLM gray level non-uniformity	✓	✓	✓
LLH m_GRLM gray level non-uniformity normalized	✓	✓	
LLH m_GRLM zone size non-uniformity	✓	✓	
LLH m_GRLM zone size non-uniformity normalized	✓	✓	
LLH m_GRLM short runs emphasis	✓	✓	
LLH m_GRLM long runs emphasis	✓	✓	
LLH m_GRLM low gray level run emphasis	✓	✓	
LLH m_GRLM high gray level run emphasis	✓		
LLH m_GRLM short run low gray level emphasis	✓	✓	
LLH m_GRLM short run high gray level emphasis	✓		
LLH m_GRLM long run low gray level emphasis	✓		
LLH m_GRLM long run high gray level emphasis	✓		
LLH m_GRLM run percentage	✓	✓	
LLH m_GRLM gray level variance	✓		✓
LLH m_GRLM run length variance	✓	✓	
LLH m_GRLM run entropy			✓
LLH GLSZM gray level non-uniformity	✓	✓	✓

Feature name	NSCLC	HNSCC	MPM
LLH GLSZM gray level non-uniformity normalized			✓
LLH GLSZM zone size non-uniformity	✓		✓
LLH GLSZM zone size non-uniformity normalized	✓		
LLH GLSZM small zone emphasis	✓		
LLH GLSZM large zone emphasis	✓	✓	
LLH GLSZM low gray level zone emphasis			
LLH GLSZM high gray level zone emphasis	✓		
LLH GLSZM small zone low gray level emphasis			
LLH GLSZM small zone high gray level emphasis	✓		
LLH GLSZM large zone low gray level emphasis	✓		
LLH GLSZM large zone high gray level emphasis	✓	✓	
LLH GLSZM zone percentage	✓	✓	
LLH GLSZM gray level variance	✓		✓
LLH GLSZM zone size variance	✓	✓	
LLH GLSZM zone size entropy	✓		
LLH GLDZM gray level non-uniformity	✓	✓	✓
LLH GLDZM gray level non-uniformity normalized			✓
LLH GLDZM zone size non-uniformity	✓		✓
LLH GLDZM zone size non-uniformity normalized	✓		
LLH GLDZM small distance emphasis	✓		
LLH GLDZM large distance emphasis	✓		
LLH GLDZM low gray level zone emphasis			
LLH GLDZM high gray level zone emphasis	✓		
LLH GLDZM small distance low gray level emphasis		✓	
LLH GLDZM small distance high gray level emphasis	✓		
LLH GLDZM large distance low gray level emphasis	✓		
LLH GLDZM large distance high gray level emphasis	✓		
LLH GLDZM zone percentage	✓	✓	
LLH GLDZM gray level variance	✓		✓
LLH GLDZM zone distance variance	✓		
LLH GLDZM zone distance entropy	✓		
LLH NGLDM gray level non-uniformity	✓	✓	✓
LLH NGLDM gray level non-uniformity normalized	✓	✓	
LLH NGLDM dependence count non-uniformity	✓		✓
LLH NGLDM dependence count non-uniformity normalized	✓	✓	
LLH NGLDM low dependence emphasis	✓	✓	
LLH NGLDM high dependence emphasis	✓	✓	
LLH NGLDM low gray level count emphasis	✓	✓	
LLH NGLDM high gray level count emphasis	✓		
LLH NGLDM low dependence low gray level emphasis		✓	

Feature name	NSCLC	HNSCC	MPM
LLH NGLDM low dependence high gray level emphasis	✓		✓
LLH NGLDM high dependence low gray level emphasis	✓		
LLH NGLDM high dependence high gray level emphasis	✓	✓	
LLH NGLDM gray level variance	✓		✓
LLH NGLDM dependence count variance	✓	✓	
LLH NGLDM dependence count entropy	✓	✓	
LLH NGLDM dependence count energy	✓	✓	
LLL intensity mean	✓	✓	
LLL intensity standard deviation	✓	✓	✓
LLL intensity coefficient of variation		✓	
LLL intensity skewness	✓	✓	
LLL intensity kurtosis	✓	✓	✓
LLL intensity variance	✓	✓	✓
LLL intensity median	✓	✓	
LLL intensity percentile 10th	✓	✓	✓
LLL intensity percentile 90th	✓	✓	✓
LLL intensity interquartile range	✓	✓	✓
LLL intensity range	✓		
LLL intensity mean absolute deviation	✓	✓	✓
LLL intensity robust mean absolute deviation	✓	✓	✓
LLL intensity energy	✓	✓	✓
LLL intensity entropy	✓	✓	✓
LLL intensity root mean square	✓	✓	✓
LLL intensity uniformity	✓	✓	✓
LLL GLCM energy	✓	✓	
LLL GLCM entropy	✓	✓	
LLL GLCM contrast	✓	✓	✓
LLL GLCM correlation	✓	✓	
LLL GLCM homogeneity	✓	✓	✓
LLL GLCM homogeneity normalized	✓	✓	✓
LLL GLCM inverse difference	✓	✓	✓
LLL GLCM inverse difference normalized	✓	✓	✓
LLL GLCM variance	✓	✓	✓
LLL GLCM sum of average	✓		
LLL GLCM sum of entropy	✓	✓	
LLL GLCM sum of variance	✓	✓	✓
LLL GLCM difference entropy	✓	✓	
LLL GLCM difference variance	✓	✓	✓
LLL GLCM information measures of correlation 1	✓	✓	

Feature name	NSCLC	HNSCC	MPM
LLL GLCM information measures of correlation 2	✓	✓	✓
LLL GLCM maximal correlation coefficient	✓	✓	
LLL GLCM joint maximum	✓	✓	
LLL GLCM joint average	✓		
LLL GLCM difference average	✓	✓	✓
LLL GLCM dissimilarity	✓	✓	✓
LLL GLCM inverse variance	✓	✓	✓
LLL GLCM autocorrelation	✓		
LLL GLCM cluster tendency	✓	✓	✓
LLL GLCM cluster shade	✓	✓	
LLL GLCM cluster prominence	✓		✓
LLL m_GLCM energy	✓	✓	
LLL m_GLCM entropy	✓	✓	✓
LLL m_GLCM contrast	✓	✓	✓
LLL m_GLCM correlation	✓	✓	
LLL m_GLCM homogeneity	✓	✓	✓
LLL m_GLCM homogeneity normalized	✓	✓	✓
LLL m_GLCM inverse difference	✓	✓	✓
LLL m_GLCM inverse difference normalized	✓	✓	✓
LLL m_GLCM variance	✓	✓	✓
LLL m_GLCM sum of average	✓		
LLL m_GLCM sum of entropy	✓	✓	✓
LLL m_GLCM sum of variance	✓	✓	✓
LLL m_GLCM difference entropy	✓	✓	✓
LLL m_GLCM difference variance	✓	✓	✓
LLL m_GLCM information measures of correlation 1	✓	✓	
LLL m_GLCM information measures of correlation 2	✓	✓	
LLL m_GLCM maximal correlation coefficient	✓	✓	
LLL m_GLCM joint maximum	✓	✓	
LLL m_GLCM joint average	✓		
LLL m_GLCM difference average	✓	✓	✓
LLL m_GLCM dissimilarity	✓	✓	✓
LLL m_GLCM inverse variance	✓	✓	✓
LLL m_GLCM autocorrelation	✓		
LLL m_GLCM cluster tendency	✓	✓	✓
LLL m_GLCM cluster shade	✓	✓	
LLL m_GLCM cluster prominence	✓		✓
LLL NGTDM coarseness	✓	✓	
LLL NGTDM contrast	✓	✓	

Feature name	NSCLC	HNSCC	MPM
LLL NGTDM busyness	✓	✓	✓
LLL NGTDM complexity	✓	✓	✓
LLL NGTDM strength	✓	✓	
LLL GRLM gray level non-uniformity	✓	✓	✓
LLL GRLM gray level non-uniformity normalized	✓	✓	✓
LLL GRLM zone size non-uniformity	✓	✓	✓
LLL GRLM zone size non-uniformity normalized	✓	✓	
LLL GRLM short runs emphasis	✓	✓	
LLL GRLM long runs emphasis	✓	✓	
LLL GRLM low gray level run emphasis	✓		
LLL GRLM high gray level run emphasis	✓		
LLL GRLM short run low gray level emphasis	✓		
LLL GRLM short run high gray level emphasis	✓		
LLL GRLM long run low gray level emphasis	✓		
LLL GRLM long run high gray level emphasis	✓		
LLL GRLM run percentage	✓	✓	
LLL GRLM gray level variance	✓	✓	✓
LLL GRLM run length variance	✓	✓	
LLL GRLM run entropy	✓	✓	✓
LLL m_GRLM gray level non-uniformity	✓	✓	✓
LLL m_GRLM gray level non-uniformity normalized	✓	✓	✓
LLL m_GRLM zone size non-uniformity	✓	✓	
LLL m_GRLM zone size non-uniformity normalized	✓	✓	
LLL m_GRLM short runs emphasis	✓	✓	
LLL m_GRLM long runs emphasis	✓	✓	
LLL m_GRLM low gray level run emphasis	✓		
LLL m_GRLM high gray level run emphasis	✓		
LLL m_GRLM short run low gray level emphasis	✓		
LLL m_GRLM short run high gray level emphasis	✓		
LLL m_GRLM long run low gray level emphasis	✓		
LLL m_GRLM long run high gray level emphasis	✓		
LLL m_GRLM run percentage	✓	✓	
LLL m_GRLM gray level variance	✓	✓	✓
LLL m_GRLM run length variance	✓	✓	
LLL m_GRLM run entropy	✓	✓	✓
LLL GLSZM gray level non-uniformity	✓	✓	✓
LLL GLSZM gray level non-uniformity normalized	✓	✓	✓
LLL GLSZM zone size non-uniformity	✓	✓	✓
LLL GLSZM zone size non-uniformity normalized	✓		

Feature name	NSCLC	HNSCC	MPM
LLL GLSZM small zone emphasis	✓		
LLL GLSZM large zone emphasis	✓	✓	
LLL GLSZM low gray level zone emphasis	✓		
LLL GLSZM high gray level zone emphasis	✓		
LLL GLSZM small zone low gray level emphasis	✓		
LLL GLSZM small zone high gray level emphasis	✓		
LLL GLSZM large zone low gray level emphasis	✓	✓	
LLL GLSZM large zone high gray level emphasis	✓	✓	
LLL GLSZM zone percentage	✓	✓	✓
LLL GLSZM gray level variance	✓	✓	✓
LLL GLSZM zone size variance	✓	✓	
LLL GLSZM zone size entropy	✓	✓	
LLL GLDZM gray level non-uniformity	✓	✓	✓
LLL GLDZM gray level non-uniformity normalized	✓	✓	✓
LLL GLDZM zone size non-uniformity	✓	✓	✓
LLL GLDZM zone size non-uniformity normalized	✓		
LLL GLDZM small distance emphasis	✓		
LLL GLDZM large distance emphasis	✓		
LLL GLDZM low gray level zone emphasis	✓		
LLL GLDZM high gray level zone emphasis	✓		
LLL GLDZM small distance low gray level emphasis	✓		
LLL GLDZM small distance high gray level emphasis	✓		
LLL GLDZM large distance low gray level emphasis	✓		
LLL GLDZM large distance high gray level emphasis	✓		
LLL GLDZM zone percentage	✓	✓	✓
LLL GLDZM gray level variance	✓	✓	✓
LLL GLDZM zone distance variance	✓	✓	
LLL GLDZM zone distance entropy	✓	✓	
LLL NGLDM gray level non-uniformity	✓	✓	✓
LLL NGLDM gray level non-uniformity normalized	✓	✓	✓
LLL NGLDM dependence count non-uniformity	✓	✓	✓
LLL NGLDM dependence count non-uniformity normalized	✓	✓	
LLL NGLDM low dependence emphasis	✓	✓	✓
LLL NGLDM high dependence emphasis	✓	✓	
LLL NGLDM low gray level count emphasis	✓		
LLL NGLDM high gray level count emphasis	✓		
LLL NGLDM low dependence low gray level emphasis	✓		
LLL NGLDM low dependence high gray level emphasis	✓		
LLL NGLDM high dependence low gray level emphasis	✓		

Feature name	NSCLC	HNSCC	MPM
LLL NGLDM high dependence high gray level emphasis	✓	✓	
LLL NGLDM gray level variance	✓	✓	✓
LLL NGLDM dependence count variance	✓	✓	
LLL NGLDM dependence count entropy	✓	✓	
LLL NGLDM dependence count energy	✓	✓	

Table 4: Stable wavelet features, intraclass correlation coefficient >0.8. NSCLC – non-small cell lung cancer, HNSCC – head and neck squamous cell carcinoma, MPM – malignant pleural mesothelioma, GLCM – the Gray Level Co-occurrence Matrix, m_GLCM – the Gray Level Co-occurrence Matrix, NGTDM – the Neighborhood Gray Tone Difference Matrix, GLRM – the Gray Level Run Length Matrix, m_GRLM – the merged Gray Level Run Length Matrix, GLSZM – the Gray Level Size Zone Matrix, GLDZM – the Gray Level Distance Zone Matrix, NGLDM – the Neighboring Gray Level Dependence Matrix, H – high–pass filter, L – low–pass filter