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## Shape analysis for phenotype characterisation from high-throughput imaging

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# List of Abbreviations

<b>2-3DLA</b>	Two-phase approach for the <b>3D</b> reconstruction and measurements from <b>light</b> microscopy <b>axial</b> -view imaging
<b>AOS</b>	Additive operator splitting
<b>ASD</b>	Axial-view Sampling Density
<b>c-LS</b>	c-level set
<b>CLSM</b>	Confocal laser scanning microscope
<b>CNN</b>	Convolutional neural networks
<b>CV</b>	Chan-Vese
<b>dpf</b>	Days post fertilisation
<b>ES</b>	Evolution Strategy
<b>GAC</b>	Geodesic active contours
<b>GFP</b>	Green fluorescent protein
<b>HD-CNN</b>	Hierarchical deep CNN
<b>hdf</b>	Hours post fertilisation
<b>HOG</b>	Histograms of Oriented Gradients
<b>HT</b>	Hight-throughput
<b>HTAI</b>	High-throughput axial-view imaging
<b>HTI</b>	Hight-throughput imaging
<b>HY</b>	Hybrid

<b>ILS</b>	Improved level set
<b>LBP</b>	Local Binary Patterns
<b>LR</b>	Logistic regressor
<b>LRLS</b>	Local region based level set
<b>LSF</b>	Level set function
<b>MM-HTAI</b>	Multi-modal high-throughput axial-view imaging
<b>MS</b>	Mean shift
<b>MVS</b>	Multi-view stereo
<b>OPT</b>	Optical projection tomography
<b>PBS</b>	Phosphate-Buffered saline
<b>PCA</b>	Principal component analysis
<b>PFA</b>	Paraformaldehyde
<b>PS</b>	Problem statement
<b>ReLU</b>	Rectified linear units
<b>RNN</b>	Recurrent neural networks
<b>RQ</b>	Research question
<b>SD</b>	Sampling density
<b>SFM</b>	Structure from motion
<b>SIFT</b>	Scale Invariant Feature Transform
<b>SVM</b>	Support vector machine
<b>t-SNE</b>	t-Distributed Stochastic Neighbor Embedding
<b>VAST</b>	Vertebrate Automated Screening Technology
<b>VRV</b>	Voxel residual volume

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