

# CPC COOPERATIVE PATENT CLASSIFICATION

## G PHYSICS (NOTES omitted)

### INSTRUMENTS

## G06 COMPUTING; CALCULATING OR COUNTING (NOTES omitted)

## G06T IMAGE DATA PROCESSING OR GENERATION, IN GENERAL

### WARNINGS

- The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:  
[G06T 1/40](#) covered by [G06T 1/20](#)
- In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

<b>1/00</b>	<b>General purpose image data processing</b>	3/08	• Projecting images onto non-planar surfaces, e.g. geodetic screens
1/0007	• {Image acquisition}	3/10	• Selection of transformation methods according to the characteristics of the input images
1/0014	• {Image feed-back for automatic industrial control, e.g. robot with camera ( <a href="#">robots B25J 19/023</a> )}	3/12	• Panorpheric to cylindrical image transformations
1/0021	• {Image watermarking}	3/14	• Transformations for image registration, e.g. adjusting or mapping for alignment of images
1/0028	• • {Adaptive watermarking, e.g. Human Visual System [HVS]-based watermarking}	3/147	• • using affine transformations
1/0035	• • • {Output size adaptive watermarking}	3/153	• • using elastic snapping
1/0042	• • {Fragile watermarking, e.g. so as to detect tampering}	3/16	• Spatio-temporal transformations, e.g. video cubism
1/005	• • {Robust watermarking, e.g. average attack or collusion attack resistant}	3/18	• Image warping, e.g. rearranging pixels individually
1/0057	• • • {Compression invariant watermarking}	3/20	• Linear translation of whole images or parts thereof, e.g. panning
1/0064	• • • {Geometric transfor invariant watermarking, e.g. affine transform invariant}	3/40	• Scaling of whole images or parts thereof, e.g. expanding or contracting
1/0071	• • • {using multiple or alternating watermarks}	3/4007	• • based on interpolation, e.g. bilinear interpolation ( <a href="#">image demosaicing G06T 3/4015</a> ; <a href="#">edge-driven or edge-based scaling G06T 3/403</a> )
1/0078	• • • {using multiple thresholds}	3/4015	• • Image demosaicing, e.g. colour filter arrays [CFA] or Bayer patterns
1/0085	• • {Time domain based watermarking, e.g. watermarks spread over several images}	3/4023	• • based on decimating pixels or lines of pixels; based on inserting pixels or lines of pixels
1/0092	• • {Payload characteristic determination in a watermarking scheme, e.g. number of bits to be embedded}	3/403	• • Edge-driven scaling; Edge-based scaling
1/20	• Processor architectures; Processor configuration, e.g. pipelining	3/4038	• • Image mosaicing, e.g. composing plane images from plane sub-images
1/60	• Memory management	3/4046	• • using neural networks
<b>3/00</b>	<b>Geometric image transformations in the plane of the image</b>	3/4053	• • based on super-resolution, i.e. the output image resolution being higher than the sensor resolution
3/02	• Affine transformations ( <a href="#">for image registration G06T 3/147</a> ; <a href="#">for image mosaicing G06T 3/4038</a> )	3/4061	• • • by injecting details from different spectral ranges
3/04	• Context-preserving transformations, e.g. by using an importance map ( <a href="#">panospheric to cylindrical image transformations G06T 3/12</a> )	3/4069	• • • by subpixel displacements
3/047	• • Fisheye or wide-angle transformations	3/4076	• • • using the original low-resolution images to iteratively correct the high-resolution images
3/053	• • Detail-in-context presentations ( <a href="#">fisheye or wide-angle transformations G06T 3/047</a> )	3/4084	• • in the transform domain, e.g. fast Fourier transform [FFT] domain scaling
3/06	• Topological mapping of higher dimensional structures onto lower dimensional surfaces	3/4092	• • Image resolution transcoding, e.g. by using client-server architectures
3/067	• • Reshaping or unfolding 3D tree structures onto 2D planes	3/60	• Rotation of whole images or parts thereof
3/073	• • Transforming surfaces of revolution to planar images, e.g. cylindrical surfaces to planar images	3/602	• • by block rotation, e.g. by recursive reversal or rotation

3/604	. . using coordinate rotation digital computer [CORDIC] devices	7/149	. . involving deformable models, e.g. active contour models
3/606	. . by memory addressing or mapping	7/155	. . involving morphological operators
3/608	. . by skew deformation, e.g. two-pass or three-pass rotation	7/162	. . involving graph-based methods
<b>5/00</b>	<b>Image enhancement or restoration</b>	7/168	. . involving transform domain methods
	<b>WARNING</b>	7/174	. . involving the use of two or more images
	Group <a href="#">G06T 5/00</a> is impacted by reclassification into group <a href="#">G06T 5/60</a> .	7/181	. . involving edge growing; involving edge linking
	Groups <a href="#">G06T 5/00</a> and <a href="#">G06T 5/60</a> should be considered in order to perform a complete search.	7/187	. . involving region growing; involving region merging; involving connected component labelling
5/10	. using non-spatial domain filtering	7/194	. . involving foreground-background segmentation
5/20	. using local operators	7/20	. Analysis of motion ( <a href="#">motion estimation for coding, decoding, compressing or decompressing digital video signals H04N 19/43, H04N 19/51</a> )
5/30	. . Erosion or dilatation, e.g. thinning	7/207	. . for motion estimation over a hierarchy of resolutions ( <a href="#">multi-resolution motion estimation or hierarchical motion estimation for coding, decoding, compressing or decompressing digital video signals H04N 19/53</a> )
5/40	. using histogram techniques	7/215	. . Motion-based segmentation
5/50	. using two or more images, e.g. averaging or subtraction	7/223	. . using block-matching
5/60	. using machine learning, e.g. neural networks	7/231	. . . using full search
	<b>WARNING</b>	7/238	. . . using non-full search, e.g. three-step search
	Group <a href="#">G06T 5/60</a> is incomplete pending reclassification of documents from group <a href="#">G06T 5/00</a> .	7/246	. . using feature-based methods, e.g. the tracking of corners or segments
	Groups <a href="#">G06T 5/00</a> and <a href="#">G06T 5/60</a> should be considered in order to perform a complete search.	7/248	. . . { <a href="#">involving reference images or patches</a> }
5/70	. Denoising; Smoothing	7/251	. . . { <a href="#">involving models</a> }
5/73	. Deblurring; Sharpening	7/254	. . involving subtraction of images
5/75	. . Unsharp masking	7/262	. . using transform domain methods, e.g. Fourier domain methods
5/77	. Retouching; Inpainting; Scratch removal	7/269	. . using gradient-based methods
5/80	. Geometric correction	7/277	. . involving stochastic approaches, e.g. using Kalman filters
5/90	. Dynamic range modification of images or parts thereof	7/285	. . using a sequence of stereo image pairs
5/92	. . based on global image properties	7/292	. . Multi-camera tracking
5/94	. . based on local image properties, e.g. for local contrast enhancement	7/30	. Determination of transform parameters for the alignment of images, i.e. image registration
<b>7/00</b>	<b>Image analysis</b>	7/32	. . using correlation-based methods
7/0002	. { <a href="#">Inspection of images, e.g. flaw detection</a> }	7/33	. . using feature-based methods
7/0004	. . { <a href="#">Industrial image inspection</a> }	7/337	. . . { <a href="#">involving reference images or patches</a> }
7/0006	. . . { <a href="#">using a design-rule based approach</a> }	7/344	. . . { <a href="#">involving models</a> }
7/0008	. . . { <a href="#">checking presence/absence</a> }	7/35	. . using statistical methods
7/001	. . . { <a href="#">using an image reference approach</a> }	7/37	. . using transform domain methods
7/0012	. . { <a href="#">Biomedical image inspection</a> }	7/38	. . Registration of image sequences
7/0014	. . . { <a href="#">using an image reference approach</a> }	7/40	. Analysis of texture ( <a href="#">depth or shape recovery from texture G06T 7/529</a> )
7/0016	. . . . { <a href="#">involving temporal comparison</a> }	7/41	. . based on statistical description of texture
7/10	. Segmentation; Edge detection ( <a href="#">motion-based segmentation G06T 7/215</a> )	7/42	. . . using transform domain methods
	<b>NOTE</b>	7/44	. . . using image operators, e.g. filters, edge density metrics or local histograms
	When classifying in groups <a href="#">G06T 7/11</a> - <a href="#">G06T 7/13</a> , classification is also made in relevant groups of <a href="#">G06T 7/136</a> - <a href="#">G06T 7/194</a> .	7/45	. . . using co-occurrence matrix computation
7/11	. . Region-based segmentation	7/46	. . . using random fields
7/12	. . Edge-based segmentation	7/48	. . . using fractals
7/13	. . Edge detection	7/49	. . based on structural texture description, e.g. using primitives or placement rules
7/136	. . involving thresholding	7/50	. Depth or shape recovery
7/143	. . involving probabilistic approaches, e.g. Markov random field [MRF] modelling	7/507	. . from shading ( <a href="#">G06T 7/586 takes precedence</a> )
		7/514	. . from specularities
		7/521	. . from laser ranging, e.g. using interferometry; from the projection of structured light
		7/529	. . from texture
		7/536	. . from perspective effects, e.g. by using vanishing points

7/543	<ul style="list-style-type: none"> <li>from line drawings</li> </ul>	11/60	<ul style="list-style-type: none"> <li>Editing figures and text; Combining figures or text</li> </ul>
7/55	<ul style="list-style-type: none"> <li>from multiple images</li> </ul>	11/80	<ul style="list-style-type: none"> <li>Creating or modifying a manually drawn or painted image using a manual input device, e.g. mouse, light pen, direction keys on keyboard</li> </ul>
7/557	<ul style="list-style-type: none"> <li>from light fields, e.g. from plenoptic cameras</li> </ul>		
7/564	<ul style="list-style-type: none"> <li>from contours</li> </ul>		
7/571	<ul style="list-style-type: none"> <li>from focus</li> </ul>	<b>13/00</b>	<b>Animation</b>
7/579	<ul style="list-style-type: none"> <li>from motion</li> </ul>	13/20	<ul style="list-style-type: none"> <li>3D [Three Dimensional] animation</li> </ul>
7/586	<ul style="list-style-type: none"> <li>from multiple light sources, e.g. photometric stereo</li> </ul>	13/205	<ul style="list-style-type: none"> <li>{driven by audio data}</li> </ul>
7/593	<ul style="list-style-type: none"> <li>from stereo images</li> </ul>	13/40	<ul style="list-style-type: none"> <li>of characters, e.g. humans, animals or virtual beings</li> </ul>
7/596	<ul style="list-style-type: none"> <li>{from three or more stereo images}</li> </ul>	13/60	<ul style="list-style-type: none"> <li>of natural phenomena, e.g. rain, snow, water or plants</li> </ul>
7/60	<ul style="list-style-type: none"> <li>Analysis of geometric attributes</li> </ul>	13/80	<ul style="list-style-type: none"> <li>2D [Two Dimensional] animation, e.g. using sprites</li> </ul>
7/62	<ul style="list-style-type: none"> <li>of area, perimeter, diameter or volume</li> </ul>	<b>15/00</b>	<b>3D [Three Dimensional] image rendering</b>
7/64	<ul style="list-style-type: none"> <li>of convexity or concavity</li> </ul>	15/005	<ul style="list-style-type: none"> <li>{General purpose rendering architectures}</li> </ul>
7/66	<ul style="list-style-type: none"> <li>of image moments or centre of gravity</li> </ul>	15/02	<ul style="list-style-type: none"> <li>Non-photorealistic rendering</li> </ul>
7/68	<ul style="list-style-type: none"> <li>of symmetry</li> </ul>	15/04	<ul style="list-style-type: none"> <li>Texture mapping</li> </ul>
7/70	<ul style="list-style-type: none"> <li>Determining position or orientation of objects or cameras (camera calibration G06T 7/80)</li> </ul>	15/06	<ul style="list-style-type: none"> <li>Ray-tracing</li> </ul>
7/73	<ul style="list-style-type: none"> <li>using feature-based methods</li> </ul>	15/08	<ul style="list-style-type: none"> <li>Volume rendering</li> </ul>
7/74	<ul style="list-style-type: none"> <li>{involving reference images or patches}</li> </ul>	15/10	<ul style="list-style-type: none"> <li>Geometric effects</li> </ul>
7/75	<ul style="list-style-type: none"> <li>{involving models}</li> </ul>	15/20	<ul style="list-style-type: none"> <li>Perspective computation</li> </ul>
7/77	<ul style="list-style-type: none"> <li>using statistical methods</li> </ul>	15/205	<ul style="list-style-type: none"> <li>{Image-based rendering}</li> </ul>
7/80	<ul style="list-style-type: none"> <li>Analysis of captured images to determine intrinsic or extrinsic camera parameters, i.e. camera calibration</li> </ul>	15/30	<ul style="list-style-type: none"> <li>Clipping</li> </ul>
7/85	<ul style="list-style-type: none"> <li>{Stereo camera calibration}</li> </ul>	15/40	<ul style="list-style-type: none"> <li>Hidden part removal</li> </ul>
7/90	<ul style="list-style-type: none"> <li>Determination of colour characteristics</li> </ul>	15/405	<ul style="list-style-type: none"> <li>{using Z-buffer}</li> </ul>
7/97	<ul style="list-style-type: none"> <li>{Determining parameters from multiple pictures (depth or shape recovery from multiple images G06T 7/55; stereo camera calibration G06T 7/85)}</li> </ul>	15/50	<ul style="list-style-type: none"> <li>Lighting effects</li> </ul>
<b>9/00</b>	<b>Image coding (bandwidth or redundancy reduction for static pictures H04N 1/41; coding or decoding of static colour picture signals H04N 1/64; methods or arrangements for coding, decoding, compressing or decompressing digital video signals H04N 19/00)</b>	15/503	<ul style="list-style-type: none"> <li>{Blending, e.g. for anti-aliasing}</li> </ul>
9/001	<ul style="list-style-type: none"> <li>{Model-based coding, e.g. wire frame}</li> </ul>	15/506	<ul style="list-style-type: none"> <li>{Illumination models}</li> </ul>
9/002	<ul style="list-style-type: none"> <li>{using neural networks}</li> </ul>	15/55	<ul style="list-style-type: none"> <li>Radiosity</li> </ul>
9/004	<ul style="list-style-type: none"> <li>{Predictors, e.g. intraframe, interframe coding}</li> </ul>	15/60	<ul style="list-style-type: none"> <li>Shadow generation</li> </ul>
9/005	<ul style="list-style-type: none"> <li>{Statistical coding, e.g. Huffman, run length coding}</li> </ul>	15/80	<ul style="list-style-type: none"> <li>Shading</li> </ul>
9/007	<ul style="list-style-type: none"> <li>{Transform coding, e.g. discrete cosine transform}</li> </ul>	15/83	<ul style="list-style-type: none"> <li>Phong shading</li> </ul>
9/008	<ul style="list-style-type: none"> <li>{Vector quantisation}</li> </ul>	15/87	<ul style="list-style-type: none"> <li>Gouraud shading</li> </ul>
9/20	<ul style="list-style-type: none"> <li>Contour coding, e.g. using detection of edges</li> </ul>	<b>17/00</b>	<b>Three dimensional [3D] modelling, e.g. data description of 3D objects</b>
9/40	<ul style="list-style-type: none"> <li>Tree coding, e.g. quadtree, octree</li> </ul>	17/005	<ul style="list-style-type: none"> <li>{Tree description, e.g. octree, quadtree}</li> </ul>
<b>11/00</b>	<b>2D [Two Dimensional] image generation</b>	17/05	<ul style="list-style-type: none"> <li>Geographic models</li> </ul>
11/001	<ul style="list-style-type: none"> <li>{Texturing; Colouring; Generation of texture or colour (inpainting G06T 5/77)}</li> </ul>	17/10	<ul style="list-style-type: none"> <li>Constructive solid geometry [CSG] using solid primitives, e.g. cylinders, cubes</li> </ul>
11/003	<ul style="list-style-type: none"> <li>{Reconstruction from projections, e.g. tomography}</li> </ul>	17/20	<ul style="list-style-type: none"> <li>Finite element generation, e.g. wire-frame surface description, {tessellation}</li> </ul>
11/005	<ul style="list-style-type: none"> <li>{Specific pre-processing for tomographic reconstruction, e.g. calibration, source positioning, rebinning, scatter correction, retrospective gating}</li> </ul>	17/205	<ul style="list-style-type: none"> <li>{Re-meshing}</li> </ul>
11/006	<ul style="list-style-type: none"> <li>{Inverse problem, transformation from projection-space into object-space, e.g. transform methods, back-projection, algebraic methods}</li> </ul>	17/30	<ul style="list-style-type: none"> <li>Polynomial surface description</li> </ul>
11/008	<ul style="list-style-type: none"> <li>{Specific post-processing after tomographic reconstruction, e.g. voxelisation, metal artifact correction}</li> </ul>	<b>19/00</b>	<b>Manipulating 3D models or images for computer graphics</b>
11/20	<ul style="list-style-type: none"> <li>Drawing from basic elements, e.g. lines or circles</li> </ul>	19/003	<ul style="list-style-type: none"> <li>{Navigation within 3D models or images}</li> </ul>
11/203	<ul style="list-style-type: none"> <li>{Drawing of straight lines or curves}</li> </ul>	19/006	<ul style="list-style-type: none"> <li>{Mixed reality (object pose determination, tracking or camera calibration for mixed reality G06T 7/00)}</li> </ul>
11/206	<ul style="list-style-type: none"> <li>{Drawing of charts or graphs}</li> </ul>	19/20	<ul style="list-style-type: none"> <li>Editing of 3D images, e.g. changing shapes or colours, aligning objects or positioning parts</li> </ul>
11/40	<ul style="list-style-type: none"> <li>Filling a planar surface by adding surface attributes, e.g. colour or texture</li> </ul>	<b>2200/00</b>	<b>Indexing scheme for image data processing or generation, in general</b>
		2200/04	<ul style="list-style-type: none"> <li>involving 3D image data</li> </ul>
		2200/08	<ul style="list-style-type: none"> <li>involving all processing steps from image acquisition to 3D model generation</li> </ul>
		2200/12	<ul style="list-style-type: none"> <li>involving antialiasing</li> </ul>
		2200/16	<ul style="list-style-type: none"> <li>involving adaptation to the client's capabilities</li> </ul>
		2200/21	<ul style="list-style-type: none"> <li>involving computational photography</li> </ul>
		2200/24	<ul style="list-style-type: none"> <li>involving graphical user interfaces [GUIs]</li> </ul>
		2200/28	<ul style="list-style-type: none"> <li>involving image processing hardware</li> </ul>

- 2200/32 . . involving image mosaicing
- 2200/36 . . Review paper; Tutorial; Survey
- 2201/00 General purpose image data processing**
- 2201/005 . . Image watermarking
- 2201/0051 . . Embedding of the watermark in the spatial domain
- 2201/0052 . . Embedding of the watermark in the frequency domain
- 2201/0053 . . Embedding of the watermark in the coding stream, possibly without decoding; Embedding of the watermark in the compressed domain
- 2201/0061 . . Embedding of the watermark in each block of the image, e.g. segmented watermarking
- 2201/0062 . . Embedding of the watermark in text images, e.g. watermarking text documents using letter skew, letter distance or row distance
- 2201/0063 . . in relation to collusion attacks, e.g. collusion attack resistant
- 2201/0064 . . for copy protection or copy management, e.g. CGMS, copy only once, one-time copy
- 2201/0065 . . Extraction of an embedded watermark; Reliable detection
- 2201/0081 . . whereby both original and watermarked images are required at decoder, e.g. destination-based, non-blind, non-oblivious
- 2201/0083 . . whereby only watermarked image required at decoder, e.g. source-based, blind, oblivious
- 2201/0201 . . whereby only tamper or origin are detected and no embedding takes place
- 2201/0202 . . whereby the quality of watermarked images is measured; Measuring quality or performance of watermarking methods; Balancing between quality and robustness
- 2201/0203 . . whereby the image with embedded watermark is reverted to the original condition before embedding, e.g. lossless, distortion-free or invertible watermarking
- 2201/0601 . . whereby calibration information is embedded in the watermark, e.g. a grid, a scale, a list of transformations
- 2207/00 Indexing scheme for image analysis or image enhancement**
- 2207/10 . . Image acquisition modality
- 2207/10004 . . Still image; Photographic image
- 2207/10008 . . . from scanner, fax or copier
- 2207/10012 . . . Stereo images
- 2207/10016 . . Video; Image sequence
- 2207/10021 . . . Stereoscopic video; Stereoscopic image sequence
- 2207/10024 . . Color image
- 2207/10028 . . Range image; Depth image; 3D point clouds
- 2207/10032 . . Satellite or aerial image; Remote sensing
- 2207/10036 . . . Multispectral image; Hyperspectral image
- 2207/10041 . . . Panchromatic image
- 2207/10044 . . . Radar image
- 2207/10048 . . Infrared image
- 2207/10052 . . Images from lightfield camera
- 2207/10056 . . Microscopic image
- 2207/10061 . . . from scanning electron microscope
- 2207/10064 . . Fluorescence image
- 2207/10068 . . Endoscopic image
- 2207/10072 . . Tomographic images
- 2207/10076 . . . 4D tomography; Time-sequential 3D tomography
- 2207/10081 . . . Computed x-ray tomography [CT]
- 2207/10084 . . . Hybrid tomography; Concurrent acquisition with multiple different tomographic modalities
- 2207/10088 . . . Magnetic resonance imaging [MRI]
- 2207/10092 . . . Diffusion tensor magnetic resonance imaging [DTI]
- 2207/10096 . . . . Dynamic contrast-enhanced magnetic resonance imaging [DCE-MRI]
- 2207/10101 . . . Optical tomography; Optical coherence tomography [OCT]
- 2207/10104 . . . Positron emission tomography [PET]
- 2207/10108 . . . Single photon emission computed tomography [SPECT]
- 2207/10112 . . . Digital tomosynthesis [DTS]
- 2207/10116 . . X-ray image
- 2207/10121 . . . Fluoroscopy
- 2207/10124 . . . Digitally reconstructed radiograph [DRR]
- 2207/10128 . . . Scintigraphy
- 2207/10132 . . . Ultrasound image
- 2207/10136 . . . 3D ultrasound image
- 2207/10141 . . Special mode during image acquisition
- 2207/10144 . . . Varying exposure
- 2207/10148 . . . Varying focus
- 2207/10152 . . . Varying illumination
- 2207/20 . . Special algorithmic details
- 2207/20004 . . Adaptive image processing
- 2207/20008 . . . Globally adaptive
- 2207/20012 . . . Locally adaptive
- 2207/20016 . . Hierarchical, coarse-to-fine, multiscale or multiresolution image processing; Pyramid transform
- 2207/20021 . . Dividing image into blocks, subimages or windows
- 2207/20024 . . Filtering details
- 2207/20028 . . . Bilateral filtering
- 2207/20032 . . . Median filtering
- 2207/20036 . . Morphological image processing
- 2207/20041 . . . Distance transform
- 2207/20044 . . . Skeletonization; Medial axis transform
- 2207/20048 . . Transform domain processing
- 2207/20052 . . . Discrete cosine transform [DCT]
- 2207/20056 . . . Discrete and fast Fourier transform, [DFT, FFT]
- 2207/20061 . . . Hough transform
- 2207/20064 . . . Wavelet transform [DWT]
- 2207/20068 . . Projection on vertical or horizontal image axis
- 2207/20072 . . Graph-based image processing
- 2207/20076 . . Probabilistic image processing
- 2207/20081 . . Training; Learning
- 2207/20084 . . Artificial neural networks [ANN]
- 2207/20088 . . Trinocular vision calculations; trifocal tensor
- 2207/20092 . . Interactive image processing based on input by user
- 2207/20096 . . . Interactive definition of curve of interest
- 2207/20101 . . . Interactive definition of point of interest, landmark or seed
- 2207/20104 . . . Interactive definition of region of interest [ROI]
- 2207/20108 . . . Interactive selection of 2D slice in a 3D data set
- 2207/20112 . . Image segmentation details

2207/20116	. . . Active contour; Active surface; Snakes	2207/30152	. . . Solder
2207/20121	. . . Active appearance model [AAM]	2207/30156	. . . Vehicle coating
2207/20124	. . . Active shape model [ASM]	2207/30161	. . . Wood; Lumber
2207/20128	. . . Atlas-based segmentation	2207/30164	. . . Workpiece; Machine component
2207/20132	. . . Image cropping	2207/30168	. . Image quality inspection
2207/20152	. . . Watershed segmentation	2207/30172	. . Centreline of tubular or elongated structure
2207/20156	. . . Automatic seed setting	2207/30176	. . Document
2207/20161	. . . Level set	2207/30181	. . Earth observation
2207/20164	. . . Salient point detection; Corner detection	2207/30184	. . . Infrastructure
2207/20168	. . . Radial search	2207/30188	. . . Vegetation; Agriculture
2207/20172	. . Image enhancement details	2207/30192	. . . Weather; Meteorology
2207/20182	. . . Noise reduction or smoothing in the temporal domain; Spatio-temporal filtering	2207/30196	. . Human being; Person
2207/20192	. . . Edge enhancement; Edge preservation	2207/30201	. . . Face
2207/20201	. . . Motion blur correction	2207/30204	. . Marker
2207/20204	. . . Removing film grain; Adding simulated film grain	2207/30208	. . . Marker matrix
2207/20208	. . . High dynamic range [HDR] image processing	2207/30212	. . Military
2207/20212	. . Image combination	2207/30216	. . Redeye defect
2207/20216	. . . Image averaging	2207/30221	. . Sports video; Sports image
2207/20221	. . . Image fusion; Image merging	2207/30224	. . . Ball; Puck
2207/20224	. . . Image subtraction	2207/30228	. . . Playing field
2207/20228	. . Disparity calculation for image-based rendering	2207/30232	. . Surveillance
2207/30	. Subject of image; Context of image processing	2207/30236	. . Traffic on road, railway or crossing
2207/30004	. . Biomedical image processing	2207/30241	. . Trajectory
2207/30008	. . . Bone	2207/30242	. . Counting objects in image
2207/30012	. . . . Spine; Backbone	2207/30244	. . Camera pose
2207/30016	. . . Brain	2207/30248	. . Vehicle exterior or interior
2207/30021	. . . Catheter; Guide wire	2207/30252	. . . Vehicle exterior; Vicinity of vehicle
2207/30024	. . . Cell structures <u>in vitro</u> ; Tissue sections <u>in vitro</u>	2207/30256	. . . . Lane; Road marking
2207/30028	. . . Colon; Small intestine	2207/30261	. . . . Obstacle
2207/30032	. . . . Colon polyp	2207/30264	. . . . Parking
2207/30036	. . . Dental; Teeth	2207/30268	. . . Vehicle interior
2207/30041	. . . Eye; Retina; Ophthalmic	<b>2210/00</b>	<b>Indexing scheme for image generation or computer graphics</b>
2207/30044	. . . Fetus; Embryo	2210/04	. . Architectural design, interior design
2207/30048	. . . Heart; Cardiac	2210/08	. . Bandwidth reduction
2207/30052	. . . Implant; Prosthesis	2210/12	. . Bounding box
2207/30056	. . . Liver; Hepatic	2210/16	. . Cloth
2207/30061	. . . Lung	2210/21	. . Collision detection, intersection
2207/30064	. . . . Lung nodule	2210/22	. . Cropping
2207/30068	. . . Mammography; Breast	2210/24	. . Fluid dynamics
2207/30072	. . . Microarray; Biochip, DNA array; Well plate	2210/28	. . Force feedback
2207/30076	. . . Plethysmography	2210/32	. . Image data format
2207/30081	. . . Prostate	2210/36	. . Level of detail
2207/30084	. . . Kidney; Renal	2210/41	. . Medical
2207/30088	. . . Skin; Dermal	2210/44	. . Morphing
2207/30092	. . . Stomach; Gastric	2210/52	. . Parallel processing
2207/30096	. . . Tumor; Lesion	2210/56	. . Particle system, point based geometry or rendering
2207/30101	. . . Blood vessel; Artery; Vein; Vascular	2210/61	. . Scene description
2207/30104	. . . . Vascular flow; Blood flow; Perfusion	2210/62	. . Semi-transparency
2207/30108	. . Industrial image inspection	2210/64	. . Weathering
2207/30112	. . . Baggage; Luggage; Suitcase	<b>2211/00</b>	<b>Image generation</b>
2207/30116	. . . Casting		
2207/30121	. . . CRT, LCD or plasma display		
2207/30124	. . . Fabrics; Textile; Paper		
2207/30128	. . . Food products		
2207/30132	. . . Masonry; Concrete		
2207/30136	. . . Metal		
2207/30141	. . . Printed circuit board [PCB]		
2207/30144	. . . Printing quality		
2207/30148	. . . Semiconductor; IC; Wafer		

- 2211/40 . . Computed tomography

#### **WARNING**

Group [G06T 2211/40](#) is impacted by reclassification into groups [G06T 2211/441](#), [G06T 2211/444](#), [G06T 2211/448](#), [G06T 2211/452](#), [G06T 2211/456](#), [G06T 2211/461](#) and [G06T 2211/464](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 2211/404 . . Angiography
- 2211/408 . . Dual energy
- 2211/412 . . Dynamic
- 2211/416 . . Exact reconstruction
- 2211/421 . . Filtered back projection [FBP]
- 2211/424 . . Iterative
- 2211/428 . . Real-time
- 2211/432 . . Truncation
- 2211/436 . . Limited angle
- 2211/441 . . AI-based methods, deep learning or artificial neural networks

#### **WARNING**

Group [G06T 2211/441](#) is incomplete pending reclassification of documents from group [G06T 2211/40](#).

Groups [G06T 2211/40](#) and [G06T 2211/441](#) should be considered in order to perform a complete search.

- 2211/444 . . Low dose acquisition or reduction of radiation dose

#### **WARNING**

Group [G06T 2211/444](#) is incomplete pending reclassification of documents from group [G06T 2211/40](#).

Groups [G06T 2211/40](#) and [G06T 2211/444](#) should be considered in order to perform a complete search.

- 2211/448 . . involving metal artefacts, streaking artefacts, beam hardening or photon starvation

#### **WARNING**

Group [G06T 2211/448](#) is incomplete pending reclassification of documents from group [G06T 2211/40](#).

Groups [G06T 2211/40](#) and [G06T 2211/448](#) should be considered in order to perform a complete search.

- 2211/452 . . involving suppression of scattered radiation or scatter correction

#### **WARNING**

Group [G06T 2211/452](#) is incomplete pending reclassification of documents from group [G06T 2211/40](#).

Groups [G06T 2211/40](#) and [G06T 2211/452](#) should be considered in order to perform a complete search.

- 2211/456 . . Optical coherence tomography [OCT]

#### **WARNING**

Group [G06T 2211/456](#) is incomplete pending reclassification of documents from group [G06T 2211/40](#).

Groups [G06T 2211/40](#) and [G06T 2211/456](#) should be considered in order to perform a complete search.

- 2211/461 . . Phase contrast imaging or dark field imaging

#### **WARNING**

Group [G06T 2211/461](#) is incomplete pending reclassification of documents from group [G06T 2211/40](#).

Groups [G06T 2211/40](#) and [G06T 2211/461](#) should be considered in order to perform a complete search.

- 2211/464 . . Dual or multimodal imaging, i.e. combining two or more imaging modalities

#### **WARNING**

Group [G06T 2211/464](#) is incomplete pending reclassification of documents from group [G06T 2211/40](#).

Groups [G06T 2211/40](#) and [G06T 2211/464](#) should be considered in order to perform a complete search.

#### **2213/00 Indexing scheme for animation**

- 2213/04 . Animation description language
- 2213/08 . Animation software package
- 2213/12 . Rule based animation

#### **2215/00 Indexing scheme for image rendering**

- 2215/06 . Curved planar reformation of 3D line structures
- 2215/08 . Gnomonic or central projection
- 2215/12 . Shadow map, environment map
- 2215/16 . Using real world measurements to influence rendering

#### **2219/00 Indexing scheme for manipulating 3D models or images for computer graphics**

- 2219/004 . Annotating, labelling
- 2219/008 . Cut plane or projection plane definition
- 2219/012 . Dimensioning, tolerancing
- 2219/016 . Exploded view
- 2219/021 . Flattening
- 2219/024 . Multi-user, collaborative environment
- 2219/028 . Multiple view windows (top-side-front-sagittal-orthogonal)
- 2219/20 . Indexing scheme for editing of 3D models
- 2219/2004 . . Aligning objects, relative positioning of parts
- 2219/2008 . . Assembling, disassembling
- 2219/2012 . . Colour editing, changing, or manipulating; Use of colour codes
- 2219/2016 . . Rotation, translation, scaling
- 2219/2021 . . Shape modification
- 2219/2024 . . Style variation