

CPC COOPERATIVE PATENT CLASSIFICATION

G PHYSICS (NOTES omitted)

INSTRUMENTS

G06 COMPUTING; CALCULATING; COUNTING (score computers for games [A63B 71/06](#), [A63D 15/20](#), [A63F 1/18](#); combinations of writing implements with computing devices [B43K 29/08](#)) (NOTES omitted)

G06T IMAGE DATA PROCESSING OR GENERATION, IN GENERAL

WARNING

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](#)

1/00	General purpose image data processing	3/0043	. . {Surface of revolution to planar image transformation}
1/0007	. {Image acquisition}		
1/0014	. {Image feed-back for automatic industrial control, e.g. robot with camera (robots B25J 19/023)}	3/005	. {for projecting an image on a non-planar surface, e.g. a geodetic screen}
1/0021	. {Image watermarking}	3/0056	. {the transformation method being selected according to the characteristics of the input image}
1/0028	. . {Adaptive watermarking, e.g. Human Visual System [HVS]-based watermarking}	3/0062	. {Panospheric to cylindrical image transformation}
1/0035	. . . {Output size adaptive watermarking}	3/0068	. {for image registration, e.g. elastic snapping}
1/0042	. . {Fragile watermarking, e.g. so as to detect tampering}	3/0075	. . {using affine transformations}
1/005	. . {Robust watermarking, e.g. average attack or collusion attack resistant}	3/0081	. . {by elastic snapping}
1/0057	. . . {Compression invariant watermarking}	3/0087	. {Spatio-temporal transformations, e.g. video cubism}
1/0064	. . . {Geometric transform invariant watermarking, e.g. affine transform invariant}	3/0093	. {for image warping, i.e. transforming by individually repositioning each pixel}
1/0071	. . . {using multiple or alternating watermarks}	3/20	. Linear translation of a whole image or part thereof, e.g. panning
1/0078	. . . {using multiple thresholds}	3/40	. Scaling the whole image or part thereof
1/0085	. . {Time domain based watermarking, e.g. watermarks spread over several images}	3/4007	. . {Interpolation-based scaling, e.g. bilinear interpolation (G06T 3/4015 , G06T 3/403 take precedence)}
1/0092	. . {Payload characteristic determination in a watermarking scheme, e.g. number of bits to be embedded}	3/4015	. . {Demosaicing, e.g. colour filter array [CFA], Bayer pattern}
1/20	. Processor architectures; Processor configuration, e.g. pipelining	3/4023	. . {Decimation- or insertion-based scaling, e.g. pixel or line decimation}
1/60	. Memory management	3/403	. . {Edge-driven scaling}
3/00	Geometric image transformation in the plane of the image, e.g. from bit-mapped to bit-mapped creating a different image	3/4038	. . {for image mosaicing, i.e. plane images composed of plane sub-images}
3/0006	. {Affine transformations (G06T 3/4038 , G06T 3/0068 take precedence)}	3/4046	. . {using neural networks}
3/0012	. {Context preserving transformation, e.g. by using an importance map (G06T 3/0062 takes precedence)}	3/4053	. . {Super resolution, i.e. output image resolution higher than sensor resolution}
3/0018	. . {Fisheye, wide-angle transformation}	3/4061	. . . {by injecting details from a different spectral band}
3/0025	. . {Detail-in-context presentation (G06T 3/0018 takes precedence)}	3/4069	. . . {by subpixel displacement}
3/0031	. {for topological mapping of a higher dimensional structure on a lower dimensional surface}	3/4076	. . . {by iteratively correcting the provisional high resolution image using the original low-resolution image}
3/0037	. . {Reshaping or unfolding a 3D tree structure onto a 2D plane}	3/4084	. . {Transform-based scaling, e.g. FFT domain scaling}
		3/4092	. . {Image resolution transcoding, e.g. client/server architecture}
		3/60	. Rotation of a whole image or part thereof

- 3/602 . . {Block rotation, e.g. by recursive reversing or rotating}
- 3/604 . . {using a CORDIC [COordinate Rotation Digital Compute] device}
- 3/606 . . {Rotation by memory addressing or mapping}
- 3/608 . . {Skewing or deskewing, e.g. by two-pass or three-pass rotation}

- 5/00 Image enhancement or restoration, e.g. from bit-mapped to bit-mapped creating a similar image**
- 5/001 . {Image restoration}
- 5/002 . . {Denoising; Smoothing (noise processing or correction adapted to be used in an image pickup device containing an electronic image sensor [H04N 5/217](#), [H04N 5/357](#) - [H04N 5/365](#))}
- 5/003 . . {Deblurring; Sharpening (vibration or motion blur correction for cameras comprising an electronic image sensor [H04N 5/23264](#))}
- 5/004 . . . {Unsharp masking}
- 5/005 . . {Retouching; Inpainting; Scratch removal (detecting, correction, reducing or removing defects, e.g. non-responsive pixels of solid state image sensors [H04N 5/367](#), scratch removal for cinematographic films scanned by electronic image sensor [H04N 5/253](#))}
- 5/006 . {Geometric correction (detecting, correcting, reducing or removing artefacts resulting only from the lens unit, e.g. flare, shading, vignetting or "cos4" [H04N 5/3572](#); correction of chromatic aberrations adapted to be used in an image pickup device containing an electronic image sensor [H04N 9/045](#))}
- 5/007 . {Dynamic range modification (applied in cameras using an electronic image sensor [H04N 5/2355](#), [H04N 5/2356](#))}
- 5/008 . . {Local, e.g. shadow enhancement}
- 5/009 . . {Global, i.e. based on properties of the image as a whole (applied in cameras using an electronic image sensor [H04N 5/23229](#), [H04N 5/235](#))}
- 5/10 . by non-spatial domain filtering {(applied in cameras using an electronic image sensor [H04N 5/23229](#), [H04N 5/235](#), [H04N 5/253](#), [H04N 5/367](#))}
- 5/20 . by the use of local operators {(applied in cameras using an electronic image sensor [H04N 5/23229](#), [H04N 5/235](#), [H04N 5/253](#), [H04N 5/367](#))}
- 5/30 . . Erosion or dilatation, e.g. thinning
- 5/40 . by the use of histogram techniques {(applied in cameras using an electronic image sensor [H04N 5/23229](#), [H04N 5/235](#))}
- 5/50 . by the use of more than one image, e.g. averaging, subtraction {(applied in cameras using an electronic image sensor [H04N 5/23229](#), [H04N 5/235](#))}

- 7/00 Image analysis**
- 7/0002 . {Inspection of images, e.g. flaw detection}
- 7/0004 . . {Industrial image inspection}
- 7/0006 . . . {using a design-rule based approach}
- 7/0008 . . . {checking presence/absence}
- 7/001 . . . {using an image reference approach}
- 7/0012 . . {Biomedical image inspection}
- 7/0014 . . . {using an image reference approach}
- 7/0016 {involving temporal comparison}

- 7/10 . Segmentation; Edge detection ([motion-based segmentation G06T 7/215](#))
- NOTE**
- In this group, multi-aspect classification is applied, so that subject matter characterised by aspects covered by groups [G06T 7/11](#), [G06T 7/12](#) or [G06T 7/13](#) should also be classified in any of the relevant groups [G06T 7/136](#) - [G06T 7/194](#).
- 7/11 . . Region-based segmentation
- 7/12 . . Edge-based segmentation
- 7/13 . . Edge detection
- 7/136 . . involving thresholding
- 7/143 . . involving probabilistic approaches, e.g. Markov random field [MRF] modelling
- 7/149 . . involving deformable models, e.g. active contour models
- 7/155 . . involving morphological operators
- 7/162 . . involving graph-based methods
- 7/168 . . involving transform domain methods
- 7/174 . . involving the use of two or more images
- 7/181 . . involving edge growing; involving edge linking
- 7/187 . . involving region growing; involving region merging; involving connected component labelling
- 7/194 . . involving foreground-background segmentation
- 7/20 . Analysis of motion ([motion estimation for coding, decoding, compressing or decompressing digital video signals H04N 19/43](#), [H04N 19/51](#))
- 7/207 . . for motion estimation over a hierarchy of resolutions ([multi-resolution motion estimation or hierarchical motion estimation for coding, decoding, compressing or decompressing digital video signals H04N 19/53](#))
- 7/215 . . Motion-based segmentation
- 7/223 . . using block-matching
- 7/231 . . . using full search
- 7/238 . . . using non-full search, e.g. three-step search
- 7/246 . . using feature-based methods, e.g. the tracking of corners or segments
- 7/248 . . . {involving reference images or patches}
- 7/251 . . . {involving models}
- 7/254 . . involving subtraction of images
- 7/262 . . using transform domain methods, e.g. Fourier domain methods
- 7/269 . . using gradient-based methods
- 7/277 . . involving stochastic approaches, e.g. using Kalman filters
- 7/285 . . using a sequence of stereo image pairs
- 7/292 . . Multi-camera tracking
- 7/30 . Determination of transform parameters for the alignment of images, i.e. image registration
- 7/32 . . using correlation-based methods
- 7/33 . . using feature-based methods
- 7/337 . . . {involving reference images or patches}
- 7/344 . . . {involving models}
- 7/35 . . using statistical methods
- 7/37 . . using transform domain methods
- 7/38 . . Registration of image sequences
- 7/40 . Analysis of texture ([depth or shape recovery from texture G06T 7/529](#))
- 7/41 . . based on statistical description of texture

7/42	. . . using transform domain methods	9/20	. Contour coding, e.g. using detection of edges
7/44	. . . using image operators, e.g. filters, edge density metrics or local histograms	9/40	. Tree coding, e.g. quadtree, octree (see provisionally also G06T 9/00)
7/45	. . . using co-occurrence matrix computation	11/00	2D [Two Dimensional] image generation
7/46	. . . using random fields	11/001	. {Texturing; Colouring; Generation of texture or colour}
7/48	. . . using fractals	11/003	. {Reconstruction from projections, e.g. tomography}
7/49	. . based on structural texture description, e.g. using primitives or placement rules	11/005	. . {Specific pre-processing for tomographic reconstruction, e.g. calibration, source positioning, rebinning, scatter correction, retrospective gating}
7/50	. Depth or shape recovery	11/006	. . {Inverse problem, transformation from projection-space into object-space, e.g. transform methods, back-projection, algebraic methods}
7/507	. . from shading (G06T 7/586 takes precedence)	11/008	. . {Specific post-processing after tomographic reconstruction, e.g. voxelisation, metal artifact correction}
7/514	. . from specularities	11/20	. Drawing from basic elements, e.g. lines or circles
7/521	. . from laser ranging, e.g. using interferometry; from the projection of structured light	11/203	. . {Drawing of straight lines or curves}
7/529	. . from texture	11/206	. . {Drawing of charts or graphs}
7/536	. . from perspective effects, e.g. by using vanishing points	11/40	. Filling a planar surface by adding surface attributes, e.g. colour or texture
7/543	. . from line drawings	11/60	. Editing figures and text; Combining figures or text
7/55	. . from multiple images	11/80	. Creating or modifying a manually drawn or painted image using a manual input device, e.g. mouse, light pen, direction keys on keyboard
7/557	. . . from light fields, e.g. from plenoptic cameras	13/00	Animation
7/564	. . . from contours	13/20	. 3D [Three Dimensional] animation
7/571	. . . from focus	13/205	. . {driven by audio data}
7/579	. . . from motion	13/40	. . of characters, e.g. humans, animals or virtual beings
7/586	. . . from multiple light sources, e.g. photometric stereo	13/60	. . of natural phenomena, e.g. rain, snow, water or plants
7/593	. . . from stereo images	13/80	. 2D [Two Dimensional] animation, e.g. using sprites
7/596	. . . . {from three or more stereo images}	15/00	3D [Three Dimensional] image rendering
7/60	. Analysis of geometric attributes	15/005	. {General purpose rendering architectures}
7/62	. . of area, perimeter, diameter or volume	15/02	. Non-photorealistic rendering
7/64	. . of convexity or concavity	15/04	. Texture mapping
7/66	. . of image moments or centre of gravity	15/06	. Ray-tracing
7/68	. . of symmetry	15/08	. Volume rendering
7/70	. Determining position or orientation of objects or cameras (camera calibration G06T 7/80)	15/10	. Geometric effects
7/73	. . using feature-based methods	15/20	. . Perspective computation
7/74	. . . {involving reference images or patches}	15/205	. . . {Image-based rendering}
7/75	. . . {involving models}	15/30	. . Clipping
7/77	. . using statistical methods	15/40	. . Hidden part removal
7/80	. Analysis of captured images to determine intrinsic or extrinsic camera parameters, i.e. camera calibration	15/405	. . . {using Z-buffer}
7/85	. . {Stereo camera calibration}	15/50	. Lighting effects
7/90	. Determination of colour characteristics	15/503	. . {Blending, e.g. for anti-aliasing}
7/97	. {Determining parameters from multiple pictures (depth or shape recovery from multiple images G06T 7/55 ; stereo camera calibration G06T 7/85)}	15/506	. . {Illumination models}
9/00	Image coding, e.g. from bit-mapped to non bit-mapped (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)	15/55	. . Radiosity
9/001	. {Model-based coding, e.g. wire frame (see provisionally also G06T 9/00)}	15/60	. . Shadow generation
9/002	. {using neural networks}	15/80	. . Shading
9/004	. {Predictors, e.g. intraframe, interframe coding (see provisionally also G06T 9/00)}	15/83	. . . Phong shading
9/005	. {Statistical coding, e.g. Huffman, run length coding (see provisionally also G06T 9/00)}	15/87	. . . Gouraud shading
9/007	. {Transform coding, e.g. discrete cosine transform (see provisionally also G06T 9/00)}	17/00	Three dimensional [3D] modelling, e.g. data description of 3D objects
9/008	. {Vector quantisation (see provisionally also G06T 9/00)}	17/005	. {Tree description, e.g. octree, quadtree}
		17/05	. Geographic models
		17/10	. Constructive solid geometry [CSG] using solid primitives, e.g. cylinders, cubes

17/20	• Finite element generation, e.g. wire-frame surface description, { tessellation }
17/205	• • { Re-meshing }
17/30	• Polynomial surface description
19/00	Manipulating 3D models or images for computer graphics
19/003	• { Navigation within 3D models or images }
19/006	• { Mixed reality (object pose determination, tracking or camera calibration for mixed reality G06T 7/00) }
19/20	• Editing of 3D images, e.g. changing shapes or colours, aligning objects or positioning parts
2200/00	Indexing scheme for image data processing or generation, in general
2200/04	• involving 3D image data
2200/08	• involving all processing steps from image acquisition to 3D model generation
2200/12	• involving antialiasing
2200/16	• involving adaptation to the client's capabilities
2200/21	• involving computational photography
2200/24	• involving graphical user interfaces [GUIs]
2200/28	• involving image processing hardware
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	2207/30068	. . .	Mammography; Breast
2207/20048	. .	Transform domain processing	2207/30072	. . .	Microarray; Biochip, DNA array; Well plate
2207/20052	. . .	Discrete cosine transform [DCT]	2207/30076	. . .	Plethysmography
2207/20056	. . .	Discrete and fast Fourier transform, [DFT, FFT]	2207/30081	. . .	Prostate
2207/20061	. . .	Hough transform	2207/30084	. . .	Kidney; Renal
2207/20064	. . .	Wavelet transform [DWT]	2207/30088	. . .	Skin; Dermal
2207/20068	. .	Projection on vertical or horizontal image axis	2207/30092	. . .	Stomach; Gastric
2207/20072	. .	Graph-based image processing	2207/30096	. . .	Tumor; Lesion
2207/20076	. .	Probabilistic image processing	2207/30101	. . .	Blood vessel; Artery; Vein; Vascular
2207/20081	. .	Training; Learning	2207/30104	. . . .	Vascular flow; Blood flow; Perfusion
2207/20084	. .	Artificial neural networks [ANN]	2207/30108	. .	Industrial image inspection
2207/20088	. .	Trinocular vision calculations; trifocal tensor	2207/30112	. . .	Baggage; Luggage; Suitcase
2207/20092	. .	Interactive image processing based on input by user	2207/30116	. . .	Casting
2207/20096	. . .	Interactive definition of curve of interest	2207/30121	. . .	CRT, LCD or plasma display
2207/20101	. . .	Interactive definition of point of interest, landmark or seed	2207/30124	. . .	Fabrics; Textile; Paper
2207/20104	. . .	Interactive definition of region of interest [ROI]	2207/30128	. . .	Food products
2207/20108	. . .	Interactive selection of 2D slice in a 3D data set	2207/30132	. . .	Masonry; Concrete
2207/20112	. .	Image segmentation details	2207/30136	. . .	Metal
2207/20116	. . .	Active contour; Active surface; Snakes	2207/30141	. . .	Printed circuit board [PCB]
2207/20121	. . .	Active appearance model [AAM]	2207/30144	. . .	Printing quality
2207/20124	. . .	Active shape model [ASM]	2207/30148	. . .	Semiconductor; IC; Wafer
2207/20128	. . .	Atlas-based segmentation	2207/30152	. . .	Solder
2207/20132	. . .	Image cropping	2207/30156	. . .	Vehicle coating
2207/20152	. . .	Watershed segmentation	2207/30161	. . .	Wood; Lumber
2207/20156	. . .	Automatic seed setting	2207/30164	. . .	Workpiece; Machine component
2207/20161	. . .	Level set	2207/30168	. .	Image quality inspection
2207/20164	. . .	Salient point detection; Corner detection	2207/30172	. .	Centreline of tubular or elongated structure
2207/20168	. . .	Radial search	2207/30176	. .	Document
2207/20172	. .	Image enhancement details	2207/30181	. .	Earth observation
2207/20182	. . .	Noise reduction or smoothing in the temporal domain; Spatio-temporal filtering	2207/30184	. . .	Infrastructure
2207/20192	. . .	Edge enhancement; Edge preservation	2207/30188	. . .	Vegetation; Agriculture
2207/20201	. . .	Motion blur correction	2207/30192	. . .	Weather; Meteorology
2207/20204	. . .	Removing film grain; Adding simulated film grain	2207/30196	. .	Human being; Person
2207/20208	. . .	High dynamic range [HDR] image processing	2207/30201	. . .	Face
2207/20212	. .	Image combination	2207/30204	. .	Marker
2207/20216	. . .	Image averaging	2207/30208	. . .	Marker matrix
2207/20221	. . .	Image fusion; Image merging	2207/30212	. .	Military
2207/20224	. . .	Image subtraction	2207/30216	. .	Redeye defect
2207/20228	. .	Disparity calculation for image-based rendering	2207/30221	. .	Sports video; Sports image
2207/30	. .	Subject of image; Context of image processing	2207/30224	. . .	Ball; Puck
2207/30004	. .	Biomedical image processing	2207/30228	. . .	Playing field
2207/30008	. . .	Bone	2207/30232	. .	Surveillance
2207/30012	. . . .	Spine; Backbone	2207/30236	. .	Traffic on road, railway or crossing
2207/30016	. . .	Brain	2207/30241	. .	Trajectory
2207/30021	. . .	Catheter; Guide wire	2207/30242	. .	Counting objects in image
2207/30024	. . .	Cell structures <u>in vitro</u> ; Tissue sections <u>in vitro</u>	2207/30244	. .	Camera pose
2207/30028	. . .	Colon; Small intestine	2207/30248	. .	Vehicle exterior or interior
2207/30032	. . . .	Colon polyp	2207/30252	. . .	Vehicle exterior; Vicinity of vehicle
2207/30036	. . .	Dental; Teeth	2207/30256	. . . .	Lane; Road marking
2207/30041	. . .	Eye; Retina; Ophthalmic	2207/30261	. . . .	Obstacle
2207/30044	. . .	Fetus; Embryo	2207/30264	. . . .	Parking
2207/30048	. . .	Heart; Cardiac	2207/30268	. . .	Vehicle interior
2207/30052	. . .	Implant; Prosthesis			
2207/30056	. . .	Liver; Hepatic	2210/00		Indexing scheme for image generation or computer graphics
2207/30061	. . .	Lung	2210/04	. .	Architectural design, interior design
2207/30064	. . . .	Lung nodule	2210/08	. .	Bandwidth reduction
			2210/12	. .	Bounding box
			2210/16	. .	Cloth
			2210/21	. .	Collision detection, intersection
			2210/22	. .	Cropping
			2210/24	. .	Fluid dynamics

- 2210/28 . Force feedback
- 2210/32 . Image data format
- 2210/36 . Level of detail
- 2210/41 . Medical
- 2210/44 . Morphing
- 2210/52 . Parallel processing
- 2210/56 . Particle system, point based geometry or rendering
- 2210/61 . Scene description
- 2210/62 . Semi-transparency
- 2210/64 . Weathering

2211/00 Image generation

- 2211/40 . Computed tomography
- 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

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