An anomalous shadow detection apparatus for detecting within an image the shadows cast by microcalcifications of various characteristics, wherein the detection performance is improved. An ultrafine structures image forming means forms an ultrafine structures image data from the image data of a target subject (mammary glands) that has been inputted thereto. A microcalcifications enhanced image obtaining means forms two microcalcifications enhanced image data, by use of two matched filters (form dependent
In a wavelet transform section, wavelet-transform coefficient signals are obtained by two-dimensional wavelet transformation, employing a low-pass filter which has a characteristic that its response at a frequency greater than a spatial frequency corresponding to grid pitch is approximately zero. Based on the direction of the grid judged by a direction judging section, a suppressing section applies one-dimensional wavelet transformation to a signal containing a grid component (when a vertical grid is used).
A first image signal representing a radiation image of an object is obtained by exposing a stimulable phosphor sheet, on which the radiation image has been stored, to stimulating rays, which cause the stimulable phosphor sheet to emit light in proportion to the amount of energy stored thereon during its exposure to radiation, the emitted light being detected. A second image signal representing the radiation image is thereafter obtained by again exposing the stimulable phosphor sheet to stimulating rays, the light

**EP00901104A2**

*Image processing system*

At least one kind of image input modality and at least one kind of image information output device are connected to an image processing system. At least one kind of image input modality, which is among connected image input modalities, includes a plurality of image information input apparatuses having different input device characteristics. The image processing system comprises a standardization device for carrying out transform processing on image information such that, in every case where the image information has been

n ț Fuji Photo Film Co., Ltd. n + 1998116366
Yamada, Masahiko; Ogawa, Eiji; Takeo n 1998.08.28
ė § G06T-005/40 → ⬤ 19970829 (J P 1997234400),1

**EP00736842A1**

*Image processing method and apparatus*

An operation of an iris filter is carried out on an original image signal representing an image, and the degree of centralization of gradients of the original image signal with respect to a picture element is thereby calculated, each of picture elements constituting the image being taken as the picture element. An image portion, which is associated with a high degree of centralization, in the image is detected in accordance with the calculated degree of centralization. Image emphasis processing is then selectively carried out on

n ț FUJI PHOTO FILM CO., LTD. n + 1996105000
Takeo, Hideya, c/o Fuji Photo Film n 1996.03.28
ė § G06T-005/40, G06T-005/30 → ⬤ 19950329 (J P 1995071774),1

**EP00726542A2**

*Method and apparatus for adjusting read-out conditions and/or image processing conditions for radiation images, rad*

A first image signal representing a radiation image of an object is obtained by exposing a stimulable phosphor sheet, on which the radiation image has been stored, to stimulating rays, which cause the stimulable phosphor sheet to emit light in proportion to the amount of energy stored thereon during its exposure to radiation, the emitted light being detected. A second image signal representing the radiation image is thereafter obtained by again exposing the stimulable phosphor sheet to stimulating rays, the light

n ț Fuji Photo Film Co., Ltd. n + 1991610624
Takeo, Hideya, c/o Fuji Photo Film n 1991.04.17
ė § G01T-001/29, G06T-005/40 → ⬤ 19900418 (J P 1990102015),1
EP00726060A2  1996.08.14
Apparatus for computer aided diagnosis of images

An apparatus for computer aided diagnosis of images comprises an entire area image memory for storing an entire area image signal representing a radiation image of an object, and a prospective abnormal pattern detecting device for detecting a prospective abnormal pattern in the radiation image in accordance with the entire area image signal. A judgment device makes a judgment as to the presence or absence of the prospective abnormal pattern in accordance with the results of the detection of the prospective

n  FUI PHOTO FILM CO., LTD. n  1996100842
Nakajima, Nobuyoshi, c/o Fuji Photo n  1996.01.22
§  A61B-006/00,G06T-007/00  19950123 (JP 1995042277),1

EP00671707A2  1995.09.13
Method for adjusting positions of radiation images

Template regions are set on a single radiation image, which is among a plurality of radiation images. Template matching is carried out, with which the template regions are matched with the radiation images other than the single radiation image. At least three corresponding points are thereby obtained in each of the plurality of the radiation images. The corresponding points in a single radiation image, which is among the plurality of the radiation images, are taken as reference corresponding points, and factors of affine

n  FUI PHOTO FILM CO., LTD. n  1995102771
Takeo, Hideya, c/o Fuji Photo n  1995.02.27
§  G06T-007/00  19940307 (JP 1994035850)

EP00544644A2  1993.06.02
Method for judging the correctness or incorrectness of prospective contour points of an irradiation field

A method for judging the correctness or incorrectness of a prospective contour point of an irradiation field comprises the steps of, on a line which connects a predetermined point located in the region inside of an irradiation field on the recording medium with an edge of the recording medium, detecting prospective contour points, each of which is considered to be an intersection of the line and a contour of the irradiation field, on the basis of the image signal components corresponding to the picture elements arrayed

n  FUI PHOTO FILM CO., LTD. n  198999300960
Takeo, Hideya, c/o Fuji Photo n  1989.04.20
§  G01T-001/29  19880420 (JP 1988097898),1
A method for recognizing an irradiation field on a recording medium comprises the steps of, on each of radial lines each of which connects a point located in the irradiation field with an edge of the recording medium, detecting prospective contour points, each of which is considered to be an intersection of each line and a contour of the irradiation field, together with their prospectiveness ranks, based on the image signal components corresponding to the picture elements arrayed along each line. When the prospective

\[ \text{EP00467087A2} \quad & \rightarrow \quad 1992.01.22 \\
\text{Method for adjusting conditions in radiation image recording, read-out, and reproducing systems} \]

A method for adjusting conditions comprises the steps of, when a radiation image of a specific object is recorded and read out, investigating whether recording and read-out operations were or were not carried out in the past for the same object as the specific object. When recording and read-out operations were carried out in the past for the same object as the specific object, image recording conditions for the specific object are adjusted such that they coincide with those under which the recording operation was carried out.

- Fuji Photo Film Co., Ltd.
- Shimura, Kazuo, c/o Fuji Photo Film
- Takeo, Hideya, c/o Fuji Photo Film

\[ \text{EP00452915A2} \quad & \rightarrow \quad 1991.10.23 \\
\text{Method and apparatus for adjusting read-out conditions and/or image processing conditions for radiation images, rad} \]

A first image signal representing a radiation image of an object is obtained by exposing a stimulable phosphor sheet, on which the radiation image has been stored, to stimulating rays, which cause the stimulable phosphor sheet to emit light in proportion to the amount of energy stored thereon during its exposure to radiation, the emitted light being detected. A second image signal representing the radiation image is thereafter obtained by again exposing the stimulable phosphor sheet to stimulating rays, the light

- Fuji Photo Film Co., Ltd.
- Shimura, Kazuo, c/o Fuji Photo Film
- Takeo, Hideya, c/o Fuji Photo Film

\[ \text{EP00342379A1} \quad & \rightarrow \quad 1989.11.23 \\
\text{Method for recognizing an irradiation field, and method for judging the correctness or incorrectness of prospective con} \]

A method for recognizing an irradiation field on a recording medium comprises the steps of, on each of radial lines each of which connects a point located in the irradiation field with an edge of the recording medium, detecting prospective contour points, each of which is considered to be an intersection of each line and a contour of the irradiation field, together with their prospectiveness ranks, based on the image signal components corresponding to the picture elements arrayed along each line. When the prospective

- Fuji Photo Film Co., Ltd.
- Shimura, Kazuo, c/o Fuji Photo Film
- Takeo, Hideya, c/o Fuji Photo Film
A method for recognizing the layout pattern of radiation images comprises the steps of preparing two-valued masks, each composed of a two-valued signal representing a layout pattern for radiation images which are to be stored on a stimulable phosphor sheet, and obtaining a preliminary read-out image signal by carrying out preliminary read out on a stimulable phosphor sheet on which radiation images have been recorded, weighting the respective picture elements with image signal values corresponding to the respective picture elements or with the reciprocals of the image signal values, thereby to find the center of gravity on the layout pattern of the radiation images.

An image signal representing a radiation image is detected from a recording medium which has been exposed to radiation over a limited irradiation field in order to record the radiation image thereon. From the image signal, a prospective contour point, which is considered to be present on a contour of the irradiation field, is detected. A method for judging the correctness or incorrectness of a prospective contour point of an irradiation field comprises the steps of investigating whether the prospective contour point is present or not.

A method of recognizing layout and subdivision patterns of radiation images comprises the steps of preparing two-valued masks, each composed of a two-valued signal representing a layout pattern for radiation images which are to be stored on a stimulable phosphor sheet, and obtaining a preliminary read-out image signal by carrying out preliminary read out on a stimulable phosphor sheet on which radiation images have been stored. The layout pattern of the radiation images is recognized by converting the preliminary read-out image.
Method of automatically determining imaged body posture in medical image display

A distribution of an image signal read from a stimulable phosphor sheet and bearing a transmitted radiation image of a human body is determined along a horizontal direction across the image. Signal values of the distribution along the direction are accumulated, and the rate of change of the accumulated values is determined to find the imaged posture of the image. Alternatively, the separation or the average value of the distribution is determined, or the pattern of the distribution is compared with a plurality of reference signal...