SVENSK FÖRENING FÖR RADIOFYSIK
Swedish Society of Radiation Physics
(Member of IUPESM)

Image quality

Technical/physical aspects

Proposal

National quality documents for digital radiography
AG1

2007-05-10 *Bertil Axelsson*

Quality control

- Slow degradation is usually not probable
- Detection of malfunction
- Alterations in image processing

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Namn

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Parameters

- SDNR $(S_1-S_2)/(\sigma_1^2+\sigma_2^2)^{1/2}$
- Kerma
- What else?

Test phantom

- Measurements of SDNR
- Entrance Kerma

1 mm Cu+
testojekt

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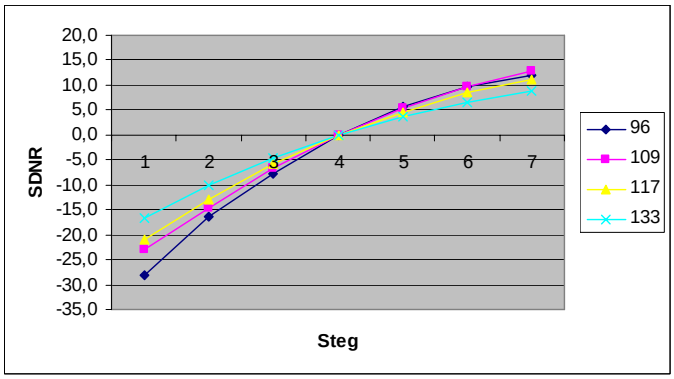
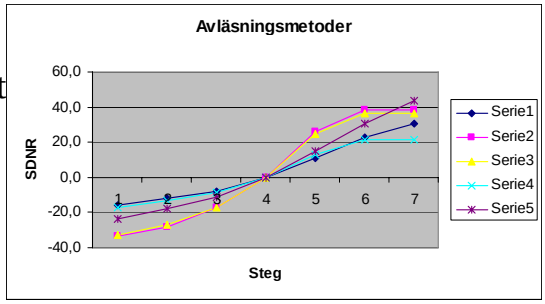
Changes in exposure parameters

- X-ray tube voltage



Changes in image processing

- Same exposure
- Readout in different image plate readers and different image processing



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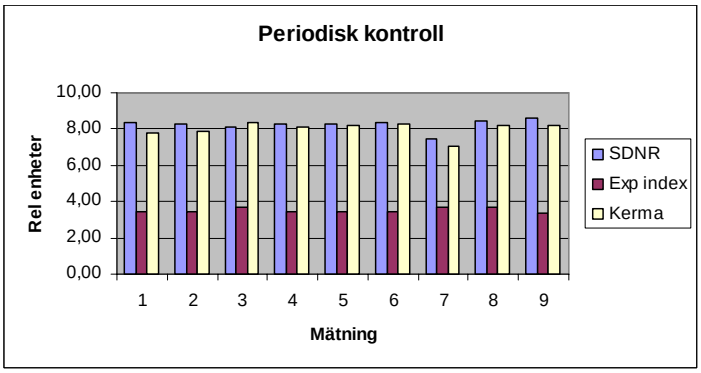
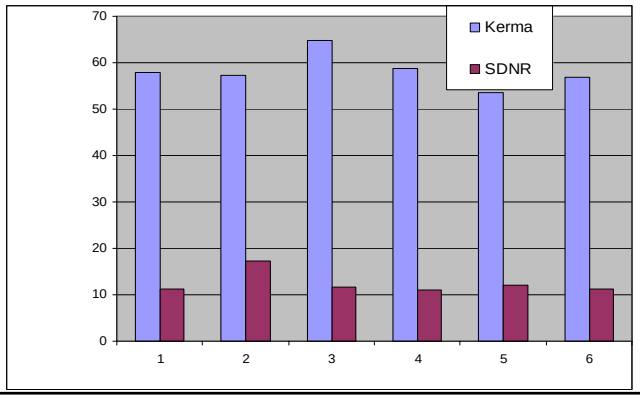
Used for constancy check Computed radiography system

- AEC
- Constant image processing



Constancy check Digital radiography

- AEC
- Constant image processing



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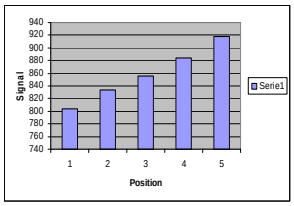
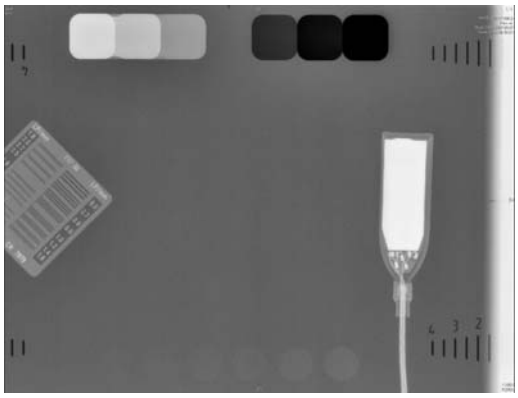
Reproducibility!



Other problems

- X-ray field



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Detail resolution

- Need to check?
- Suitable method?
- Contrast-detail curves?

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