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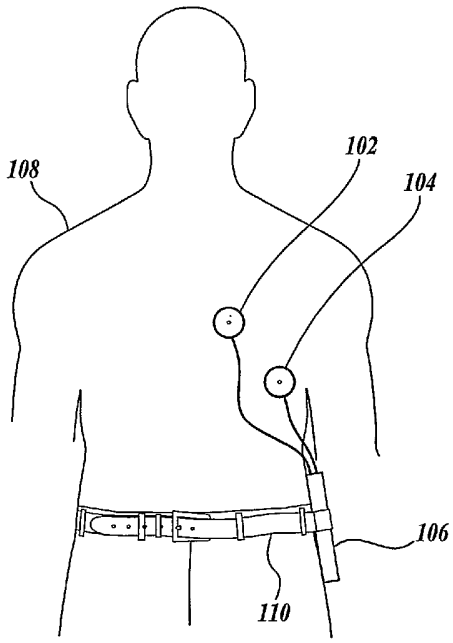
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(54) Title: LONG-TERM MONITORING FOR DETECTION OF ATRIAL FIBRILLATION




(57) Abstract: A method and a system for detection of an arrhythmia, the method comprising determining a number of heart beat intervals; determining an instantaneous heart rate for each of the heart beat intervals; determining the variability of the instantaneous heart rates compared to a mean of the number of instantaneous heart rates; determining a non-linear value that represents the variability of the instantaneous heart rates; and detecting the arrhythmia by comparing the non-linear value with a predetermined threshold.

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# INTERNATIONAL SEARCH REPORT

International application No.
PCT/US05/37961

A. CLASSIFICATION OF SUBJECT MATTER
IPC: **A61B 5/0464**( 2006.01)

USPC: 600/515
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 600/515-518,522,523

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|---|---|---|
| X | US 6,487,442 B1 (Wood) 26 November 2002 (26.11.2002) see entire document | 1, 2, 4, 5, 7-11, 13, 15 |
| X | US 5,348,008 A (Bornn et al) 20 September 1994 (20.09.1994) see entire document | 20-46 |

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☐ See patent family annex.

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| Date of the actual completion of the international search | Date of mailing of the international search report |
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| Name and mailing address of the ISA/US<br>Mail Stop PCT, Attn: ISA/US<br>Commissioner for Patents<br>P.O. Box 1450<br>Alexandria, Virginia 22313-1450<br>Facsimile No. (571) 273-3201 | Authorized officer<br>George R. Evanisko<br>Telephone No. 571-272-3700 |

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