Mads Græsbøll Christensen

List of Publications by Year
in descending order

186 papers	2,578 citations	279487 23 h-index	276539 41 g-index
186 all docs	186 docs citations	186 times ranked	1622 citing authors

#	Article	IF	Citations
1	Robust Spectral Analysis of Multi-Channel Sinusoidal Signals in Impulsive Noise Environments. IEEE Transactions on Signal Processing, 2022, 70, 919-935.	3.2	10
2	Communication efficient privacy-preserving distributed optimization using adaptive differential quantization. Signal Processing, 2022, 194, 108456.	2.1	5
3	Maximizing the acoustic contrast with constrained reconstruction error under a generalized pressure matching framework in sound zone control. Journal of the Acoustical Society of America, 2022, 151, 2751-2759.	0.5	8
4	Sparse Modeling of The Early Part of Noisy Room Impulse Responses with Sparse Bayesian Learning. , 2022, , .		4
5	Generation of Personal Sound Fields in Reverberant Environments Using Interframe Correlation. , 2022, , .		1
6	Computationally Efficient Fixed-Filter ANC for Speech Based on Long-Term Prediction for Headphone Applications. , 2022, , .		3
7	Privacy-Preserving Distributed Expectation Maximization for Gaussian Mixture Model Using Subspace Perturbation. , 2022, , .		2
8	A Bayesian Permutation Training Deep Representation Learning Method for Speech Enhancement with Variational Autoencoder. , 2022, , .		3
9	Gammatone Filter Bank-Deep Neural Network-based Monaural speech enhancement for unseen conditions. Applied Acoustics, 2022, 194, 108784.	1.7	2
10	High-Resolution and Accurate RV Map Estimation by Spare Bayesian Learning. IEEE Transactions on Vehicular Technology, 2022, 71, 9613-9624.	3.9	0
11	Artificial Neural Network Based Identification of Multi-Operating-Point Impedance Model. IEEE Transactions on Power Electronics, 2021, 36, 1231-1235.	5.4	33
12	Fast algorithms for fundamental frequency estimation in autoregressive noise. Signal Processing, 2021, 180, 107860.	2.1	5
13	Privacy-Preserving Distributed Processing: Metrics, Bounds and Algorithms. IEEE Transactions on Information Forensics and Security, 2021, 16, 2090-2103.	4.5	16
14	Fast Generation of Sound Zones Using Variable Span Trade-Off Filters in the DFT-Domain. IEEE/ACM Transactions on Audio Speech and Language Processing, 2021, 29, 363-378.	4.0	18
15	Generation of Personal Sound Zones With Physical Meaningful Constraints and Conjugate Gradient Method. IEEE/ACM Transactions on Audio Speech and Language Processing, 2021, 29, 823-837.	4.0	12
16	Automatic quality control and enhancement for voice-based remote Parkinson's disease detection. Speech Communication, 2021, 127, 1-16.	1.6	13
17	Acoustic DOA estimation using space alternating sparse Bayesian learning. Eurasip Journal on Audio, Speech, and Music Processing, 2021, 2021, .	1.3	7
18	A Novel NMF-HMM Speech Enhancement Algorithm Based on Poisson Mixture Model. , 2021, , .		5

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19	Convex optimization-based Privacy-Preserving Distributed Least Squares via Subspace Perturbation. , 2021, , .		0
20	Privacy-Preserving Distributed Graph Filtering. , 2021, , .		7
21	Spectral analysis of heart sounds associated with coronary artery disease. Physiological Measurement, 2021, 42, 105013.	1.2	3
22	A Coherence-based Clustering Method for Multichannel Speech Enhancement in Wireless Acoustic Sensor Networks. , 2021, , .		2
23	Harmonic beamformers for speech enhancement and dereverberation in the time domain. Speech Communication, 2020, 116, 1-11.	1.6	5
24	Robust Fundamental Frequency Estimation in Coloured Noise. , 2020, , .		2
25	Experimental study of robust acoustic beamforming for speech acquisition in reverberant and noisy environments. Applied Acoustics, 2020, 170, 107531.	1.7	9
26	Privacy-Preserving Distributed Optimization via Subspace Perturbation: A General Framework. IEEE Transactions on Signal Processing, 2020, 68, 5983-5996.	3.2	22
27	Signal-Adaptive and Perceptually Optimized Sound Zones With Variable Span Trade-Off Filters. IEEE/ACM Transactions on Audio Speech and Language Processing, 2020, 28, 2412-2426.	4.0	19
28	A new feedforward hybrid active control system for attenuating multi-frequency noise with bursty interference. Mechanical Systems and Signal Processing, 2020, 144, 106859.	4.4	20
29	Autoregressive Parameter Estimation with Dnn-Based Pre-Processing. , 2020, , .		1
30	Model-based distributed node clustering and multi-speaker speech presence probability estimation in wireless acoustic sensor networks. Journal of the Acoustical Society of America, 2020, 147, 4189-4201.	0.5	12
31	Convex Optimisation-Based Privacy-Preserving Distributed Average Consensus in Wireless Sensor Networks. , 2020, , .		11
32	A New Variable Step Size Algorithm Based Hybrid Active Noise Control System for Gaussian Noise with Impulsive Interference. , 2020, , .		1
33	Performance Comparison of AR Codebook Training for Speech Processing. , 2020, , .		0
34	Robust Bayesian Pitch Tracking Based on the Harmonic Model. IEEE/ACM Transactions on Audio Speech and Language Processing, 2019, 27, 1737-1751.	4.0	28
35	Quality Control of Voice Recordings in Remote Parkinson's Disease Monitoring Using the Infinite Hidden Markov Model. , 2019, , .		2
36	A Study on How Pre-whitening Influences Fundamental Frequency Estimation. , 2019, , .		9

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37	Estimation of Guitar String, Fret and Plucking Position Using Parametric Pitch Estimation. , 2019, , .		6
38	Towards Perceptually Optimized Sound Zones: A Proof-of-concept Study. , 2019, , .		8
39	Parametric Modeling for Two-Dimensional Harmonic Signals With Missing Harmonics. IEEE Access, 2019, 7, 48671-48688.	2.6	9
40	Quality Control in Remote Speech Data Collection. IEEE Journal on Selected Topics in Signal Processing, 2019, 13, 236-243.	7.3	4
41	Physical Models For Fast Estimation Of Guitar String, Fret And Plucking Position. , 2019, , .		3
42	Adaptive Pre-whitening Based on Parametric NMF. , 2019, , .		6
43	Indoor Sound Source Localization based on Sparse Bayesian Learning and Compressed Data. , 2019, , .		3
44	A Sparse Bayesian Learning Based RIR Reconstruction Method for Acoustic Toa And DOA Estimation. , 2019, , .		3
45	Estimation of Fundamental Frequencies in Stereophonic Music Mixtures. IEEE/ACM Transactions on Audio Speech and Language Processing, 2019, 27, 296-310.	4.0	7
46	Model-Based Speech Enhancement for Intelligibility Improvement in Binaural Hearing Aids. IEEE/ACM Transactions on Audio Speech and Language Processing, 2019, 27, 99-113.	4.0	24
47	A Parametric Approach for Classification of Distortions in Pathological Voices. , 2018, , .		7
48	Online Parametric NMF for Speech Enhancement. , 2018, , .		10
49	Revisiting the Linear Prediction Analysis-by-Synthesis Speech Coding Paradigm Using Real-Time Convex Optimization. , 2018, , .		0
50	Estimation of Source Panning Parameters and Segmentation of Stereophonic Mixtures. , 2018, , .		1
51	Sound Zones As An Optimal Filtering Problem. , 2018, , .		13
52	A Supervised Approach to Global Signal-to-Noise Ratio Estimation for Whispered and Pathological Voices. , 2018, , .		5
53	A Unified Approach to Generating Sound Zones Using Variable Span Linear Filters. , 2018, , .		16
54	Model-Based Voice Activity Detection in Wireless Acoustic Sensor Networks. , 2018, , .		1

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55	Non-intrusive codebook-based intelligibility prediction. Speech Communication, 2018, 101, 85-93.	1.6	6
56	Sound source localization and speech enhancement with sparse Bayesian learning beamforming. Journal of the Acoustical Society of America, 2018, 143, 3912-3921.	0.5	53
57	Fast fundamental frequency estimation: Making a statistically efficient estimator computationally efficient. Signal Processing, 2017, 135, 188-197.	2.1	48
58	Estimation of multiple pitches in stereophonic mixtures using a codebook-based approach. , 2017, , .		1
59	A Fast Algorithm for Maximum-Likelihood Estimation of Harmonic Chirp Parameters. IEEE Transactions on Signal Processing, 2017, 65, 5137-5152.	3.2	23
60	Fast harmonic chirp summation. , 2017, , .		2
61	Kalman filter for speech enhancement in cocktail party scenarios using a codebook-based approach. , 2016, , .		15
62	Computationally Efficient and Noise Robust DOA and Pitch Estimation. IEEE/ACM Transactions on Audio Speech and Language Processing, 2016, 24, 1613-1625.	4.0	7
63	Multi-pitch estimation of audio recordings using a codebook-based approach. , 2016, , .		2
64	Computational analysis of a fast algorithm for high-order sparse linear prediction. , 2016, , .		1
65	A partitioned approach to signal separation with microphone ad hoc arrays. , 2016, , .		2
66	Instantaneous Fundamental Frequency Estimation With Optimal Segmentation for Nonstationary Voiced Speech. IEEE/ACM Transactions on Audio Speech and Language Processing, 2016, 24, 2354-2367.	4.0	23
67	Binaural speech enhancement using a codebook based approach. , 2016, , .		4
68	Automatic Analysis of Activities in Sports Arenas Using Thermal Cameras. , 2016, , .		2
69	Grid size selection for nonlinear least-squares optimisation in spectral estimation and array processing. , 2016, , .		6
70	DOA estimation of audio sources in reverberant environments. , 2016, , .		12
71	Enhancement and Noise Statistics Estimation for Non-Stationary Voiced Speech. IEEE/ACM Transactions on Audio Speech and Language Processing, 2016, 24, 645-658.	4.0	9
72	Fast algorithms for high-order sparse linear prediction with applications to speech processing. Speech Communication, 2016, 76, 143-156.	1.6	16

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73	A Framework for Speech Enhancement With Ad Hoc Microphone Arrays. IEEE/ACM Transactions on Audio Speech and Language Processing, 2016, 24, 1038-1051.	4.0	31
74	Noise Reduction with Optimal Variable Span Linear Filters. IEEE/ACM Transactions on Audio Speech and Language Processing, 2016, 24, 631-644.	4.0	38
75	Fast and statistically efficient fundamental frequency estimation. , 2016, , .		6
76	A fast algorithm for maximum likelihood-based fundamental frequency estimation. , 2015, , .		3
77	Preference learning with evolutionary Multivariate Adaptive Regression Spline model. , 2015, , .		5
78	A discriminative approach for speaker selection in speaker de-identification systems. , 2015, , .		7
79	Audio-Visual Classification of Sports Types. , 2015, , .		10
80	On frequency domain models for TDOA estimation. , 2015, , .		8
81	A joint audio-visual approach to audio localization. , 2015, , .		0
82	Pitch and TDOA-based localization of acoustic sources with distributed arrays. , 2015, , .		0
83	Multi-pitch estimation exploiting block sparsity. Signal Processing, 2015, 109, 236-247.	2.1	42
84	Joint Spatio-Temporal Filtering Methods for DOA and Fundamental Frequency Estimation. IEEE/ACM Transactions on Audio Speech and Language Processing, 2014, , 1-1.	4.0	8
85	Localizing near and far field acoustic sources with distributed microhone arrays. , 2014, , .		2
86	The single- and multichannel audio recordings database (SMARD). , 2014, , .		30
87	Non-linguistic vocal event detection using online random forest. , 2014, , .		1
88	Model selection and comparison for independents sinusoids. , 2014, , .		1
89	A brief overview of speech enhancement with linear filtering. Eurasip Journal on Advances in Signal Processing, 2014, 2014, .	1.0	3
90	Single-channel noise reduction using unified joint diagonalization and optimal filtering. Eurasip Journal on Advances in Signal Processing, 2014, 2014, .	1.0	11

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91	Noise reduction in the time domain using joint diagonalization. , 2014, , .		3
92	Joint sparsity and frequency estimation for spectral compressive sensing. , 2014, , .		3
93	Stable 1-Norm Error Minimization Based Linear Predictors for Speech Modeling. IEEE/ACM Transactions on Audio Speech and Language Processing, 2014, 22, 912-922.	4.0	14
94	Fundamental frequency and model order estimation using spatial filtering. , 2014, , .		1
95	Bayesian Model Comparison With the g-Prior. IEEE Transactions on Signal Processing, 2014, 62, 225-238.	3.2	26
96	Parametric Modeling for Damped Sinusoids From Multiple Channels. IEEE Transactions on Signal Processing, 2013, 61, 3895-3907.	3.2	16
97	Spatio-temporal filtering methods for enhancement and separation of speech signals. , 2013, , .		0
98	Improved prediction error filters for adaptive feedback cancellation in hearing aids. Signal Processing, 2013, 93, 3062-3075.	2.1	22
99	Accurate Estimation of Low Fundamental Frequencies From Real-Valued Measurements. IEEE Transactions on Audio Speech and Language Processing, 2013, 21, 2042-2056.	3.8	20
100	An LCMV filter for single-channel noise cancellation and reduction in the time domain. , 2013, , .		1
101	Default Bayesian Estimation of the Fundamental Frequency. IEEE Transactions on Audio Speech and Language Processing, 2013, 21, 598-610.	3.8	28
102	Fast LCMV-Based Methods for Fundamental Frequency Estimation. IEEE Transactions on Signal Processing, 2013, 61, 3159-3172.	3.2	21
103	Nonlinear Least Squares Methods for Joint DOA and Pitch Estimation. IEEE Transactions on Audio Speech and Language Processing, 2013, 21, 923-933.	3.8	45
104	Metrics for vector quantization-based parametric speech enhancement and separation. Journal of the Acoustical Society of America, 2013, 133, 3062-3071.	0.5	6
105	A Class of Optimal Rectangular Filtering Matrices for Single-Channel Signal Enhancement in the Time Domain. IEEE Transactions on Audio Speech and Language Processing, 2013, 21, 2595-2606.	3.8	6
106	An exact subspace method for fundamental frequency estimation. , 2013, , .		1
107	Statistically efficient methods for pitch and DOA estimation. , 2013, , .		7
108	Bayesian model comparison and the BIC for regression models. , 2013, , .		10

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109	An approximate Bayesian fundamental frequency estimator. , 2012, , .		6
110	A Joint Approach for Single-Channel Speaker Identification and Speech Separation. IEEE Transactions on Audio Speech and Language Processing, 2012, 20, 2586-2601.	3.8	37
111	New Entries to the SPL EDICS for Audio and Acoustic Signal Processing. IEEE Signal Processing Letters, 2012, 19, 918-921.	2.1	0
112	A method for low-delay pitch tracking and smoothing. , 2012, , .		9
113	Subjective and objective quality assessment of single-channel speech separation algorithms. , 2012, , .		21
114	On compressed sensing and the estimation of continuous parameters from noisy observations. , 2012, , .		13
115	Multi-channel maximum likelihood pitch estimation. , 2012, , .		18
116	Two stage DOA and fundamental frequency estimation based on subspace techniques. , 2012, , .		4
117	Joint DOA and multi-pitch estimation based on subspace techniques. Eurasip Journal on Advances in Signal Processing, 2012, 2012, .	1.0	211
118	Non-Causal Time-Domain Filters for Single-Channel Noise Reduction. IEEE Transactions on Audio Speech and Language Processing, 2012, 20, 1526-1541.	3.8	12
119	Sparse Linear Prediction and Its Applications to Speech Processing. IEEE Transactions on Audio Speech and Language Processing, 2012, 20, 1644-1657.	3.8	103
120	Enhancement of Single-Channel Periodic Signals in the Time-Domain. IEEE Transactions on Audio Speech and Language Processing, 2012, 20, 1948-1963.	3.8	34
121	Joint direction-of-arrival and order estimation in compressed sensing using angles between subspaces. , 2011, , .		5
122	On the estimation of low fundamental frequencies. , 2011, , .		2
123	New Results on Single-Channel Speech Separation Using Sinusoidal Modeling. IEEE Transactions on Audio Speech and Language Processing, 2011, 19, 1265-1277.	3.8	22
124	Bayesian Interpolation and Parameter Estimation in a Dynamic Sinusoidal Model. IEEE Transactions on Audio Speech and Language Processing, 2011, 19, 1986-1998.	3.8	14
125	New Results on Perceptual Distortion Minimization and Nonlinear Least-Squares Frequency Estimation. IEEE Transactions on Audio Speech and Language Processing, 2011, 19, 2239-2244.	3.8	7
126	Joint fundamental frequency and order estimation using optimal filtering. Eurasip Journal on Advances in Signal Processing, 2011, 2011, .	1.0	20

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127	An iterative subspace-based multi-pitch estimation algorithm. Signal Processing, 2011, 91, 150-154.	2.1	3
128	A perceptually reweighted mixed-norm method for sparse approximation of audio signals. , 2011, , .		5
129	A new metric for VQ-based speech enhancement and separation. , 2011, , .		0
130	A single snapshot optimal filtering method for fundamental frequency estimation. , 2011, , .		1
131	Cyclic pure greedy algorithms for recovering compressively sampled sparse signals. , 2011, , .		8
132	Optimal Filter Designs for Separating and Enhancing Periodic Signals. IEEE Transactions on Signal Processing, 2010, 58, 5969-5983.	3.2	42
133	A Robust and Computationally Efficient Subspace-Based Fundamental Frequency Estimator. IEEE Transactions on Audio Speech and Language Processing, 2010, 18, 487-497.	3.8	19
134	Adaptive feedback cancellation in hearing aids using a sinusoidal near-end signal model. , 2010, , .		14
135	Cyclic matching pursuits with multiscale time-frequency dictionaries. , 2010, , .		7
136	Sinusoidal masks for single channel speech separation. , 2010, , .		12
137	Joint single-channel speech separation and speaker identification. , 2010, , .		13
138	Estimation of frame independent and enhancement components for speech communication over packet networks. , 2010, , .		1
139	Enhancing sparsity in linear prediction of speech by iteratively reweighted 1-norm minimization. , 2010, , .		14
140	A MAP criterion for detecting the number of speakers at frame level in model-based single-channel speech separation. , 2010, , .		5
141	An optimal spatio-temporal filter for extraction and enhancement of multi-channel periodic signals. , 2010, , .		2
142	Error-correction of binary masks using hidden Markov models. , 2010, , .		0
143	Improved single-channel speech separation using sinusoidal modeling. , 2010, , .		11
144	Retrieving Sparse Patterns Using a Compressed Sensing Framework: Applications to Speech Coding Based on Sparse Linear Prediction. IEEE Signal Processing Letters, 2010, 17, 103-106.	2.1	56

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145	Joint estimation of short-term and long-term predictors in speech coders. , 2009, , .		13
146	Re-estimation of linear predictive parameters in sparse linear prediction. , 2009, , .		2
147	Multi-Pitch Estimation. Synthesis Lectures on Speech and Audio Processing, 2009, 5, 1-160.	0.4	75
148	Quantitative Analysis of a Common Audio Similarity Measure. IEEE Transactions on Audio Speech and Language Processing, 2009, 17, 693-703.	3.8	36
149	Optimal filters for extraction and separation of periodic sources. , 2009, , .		1
150	Robust implementation of the MUSIC algorithm. , 2009, , .		6
151	Robust Parametric Audio Coding Using Multiple Description Coding. IEEE Signal Processing Letters, 2009, 16, 1083-1086.	2.1	5
152	Multiple description spherical quantization of sinusoidal parameters with repetition coding of the amplitudes. , 2009, , .		1
153	On compressed sensing and its application to speech and audio signals. , 2009, , .		35
154	Sinusoidal Order Estimation Using Angles between Subspaces. Eurasip Journal on Advances in Signal Processing, 2009, 2009, .	1.0	43
155	Multi-pitch estimation. Signal Processing, 2008, 88, 972-983.	2.1	107
156	On Optimal Filter Designs for Fundamental Frequency Estimation. IEEE Signal Processing Letters, 2008, 15, 745-748.	2.1	15
157	Variable Dimension Trellis-Coded Quantization of Sinusoidal Parameters. IEEE Signal Processing Letters, 2008, 15, 17-20.	2.1	6
158	Robust subspace-based fundamental frequency estimation. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	14
159	Multiple description quantization of sinusoidal parameters. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	0
160	Theorems on Positive Data: On the Uniqueness of NMF. Computational Intelligence and Neuroscience, 2008, 2008, 1-9.	1.1	117
161	Waveform approximating residual audio coding with perceptual pre- and post-filtering. , 2008, , .		1
162	A tempo-insensitive distance measure for cover song identification based on chroma features. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	14

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163	Multiple Description Trellis-Coded Quantization of Sinusoidal Parameters. IEEE Transactions on Signal Processing, 2008, 56, 5287-5291.	3.2	2
164	Structured non-negative matrix factorization with sparsity patterns. , 2008, , .		8
165	Frequency selective sinusoidal order estimation. Electronics Letters, 2007, 43, 1164.	0.5	4
166	The Multi-Pitch Estimation Problem: some New Solutions. , 2007, , .		7
167	Fundamental Frequency Estimation using the Shift-Invariance Property. Conference Record of the Asilomar Conference on Signals, Systems and Computers, 2007, , .	0.0	6
168	Sinusoidal Order Estimation using the Subspace Orthogonality and Shift-Invariance Properties. Conference Record of the Asilomar Conference on Signals, Systems and Computers, 2007, , .	0.0	3
169	Joint High-Resolution Fundamental Frequency and Order Estimation. IEEE Transactions on Audio Speech and Language Processing, 2007, 15, 1635-1644.	3.8	71
170	Amplitude modulated sinusoidal signal decomposition for audio coding. IEEE Signal Processing Letters, 2006, 13, 389-392.	2.1	6
171	Multi-Pitch Estimation Using Harmonic Music. , 2006, , .		19
172	Efficient parametric coding of transients. IEEE Transactions on Audio Speech and Language Processing, 2006, 14, 1340-1351.	3.8	15
173	On perceptual distortion minimization and nonlinear least-squares frequency estimation. IEEE Transactions on Audio Speech and Language Processing, 2006, 14, 99-109.	3.8	24
174	Variable Order Harmonic Sinusoidal Parameter Estimation for Speech and Audio Signals. , 2006, , .		6
175	Amplitude Modulated Sinusoidal Models for Audio Modeling and Coding. Lecture Notes in Computer Science, 2003, , 1334-1342.	1.0	5
176	Compressed domain packet loss concealment of sinusoidally coded speech. , 0, , .		12
177	Multiband amplitude modulated sinusoidal audio modeling. , 0, , .		3
178	Open Loop Rate-Distortion Optimized Audio Coding. , 0, , .		3
179	Low complexity rate-distortion optimized time-segmentation for audio coding. , 0, , .		1
180	Linear AM Decomposition for Sinusoidal Audio Coding. , 0, , .		3

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181	Computationally Efficient Amplitude Modulated Sinusoidal Audio Coding Using Frequency-Domain Linear Prediction. , 0, , .		1
182	Dominant Distortion Classification for Pre-Processing of Vowels in Remote Biomedical Voice Analysis. , 0, , .		15
183	Sparse linear predictors for speech processing. , 0, , .		24
184	Frequency-domain parameter estimations for binary masked signals. , 0, , .		1
185	Enhancement of non-stationary speech using harmonic chirp filters. , 0, , .		2
186	Autoregressive Whitening Filter for Detection of Coronary Artery Disease Based on Phonocardiography. , 0, , .		1