Elmar NÃ¶th

List of Publications by Year
in descending order

132 papers	3,047 citations	185998 28 h-index	214527 47 g-index
145 all docs	145 docs citations	145 times ranked	2062 citing authors

#	Article	IF	Citations
1	PEAKS â€“ A system for the automatic evaluation of voice and speech disorders. Speech Communication, 2009, 51, 425-437.	1.6	214
2	How to find trouble in communication. Speech Communication, 2003, 40, 117-143.	1.6	202
3	Automatic detection of Parkinson's disease in running speech spoken in three different languages. Journal of the Acoustical Society of America, 2016, 139, 481-500.	0.5	151
4	Multimodal Assessment of Parkinson's Disease: A Deep Learning Approach. IEEE Journal of Biomedical and Health Informatics, 2019, 23, 1618-1630.	3.9	126
5	Interpolated markov chains for eukaryotic promoter recognition. Bioinformatics, 1999, 15, 362-369.	1.8	105
6	Characterization Methods for the Detection of Multiple Voice Disorders: Neurological, Functional, and Laryngeal Diseases. IEEE Journal of Biomedical and Health Informatics, 2015, 19, 1820-1828.	3.9	96
7	How language flows when movements donâ€™t: An automated analysis of spontaneous discourse in Parkinsonâ€™s disease. Brain and Language, 2016, 162, 19-28.	0.8	89
8	Private emotions versus social interaction: a data-driven approach towards analysing emotion in speech. User Modeling and User-Adapted Interaction, 2008, 18, 175-206.	2.9	76
9	NeuroSpeech: An open-source software for Parkinson's speech analysis. , 2018, 77, 207-221.		72
10	Towards an automatic evaluation of the dysarthria level of patients with Parkinson's disease. Journal of Communication Disorders, 2018, 76, 21-36.	0.8	72
11	Vowel- and Text-Based Cepstral Analysis of Chronic Hoarseness. Journal of Voice, 2012, 26, 416-424.	0.6	71
12	Evaluation of speech intelligibility for children with cleft lip and palate by means of automatic speech recognition. International Journal of Pediatric Otorhinolaryngology, 2006, 70, 1741-1747.	0.4	70
13	Age and gender recognition for telephone applications based on GMM supervectors and support vector machines. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	70
14	Deep Learning Approach to Parkinsonâ€™s Disease Detection Using Voice Recordings and Convolutional Neural Network Dedicated to Image Classification. , 2019, 2019, 717-720.		57
15	VERBMOBIL: the use of prosody in the linguistic components of a speech understanding system. IEEE Transactions on Speech and Audio Processing, 2000, 8, 519-532.	2.0	56
16	ORCA-SPOT: An Automatic Killer Whale Sound Detection Toolkit Using Deep Learning. Scientific Reports, 2019, 9, 10997.	1.6	55
17	Automatic pronunciation scoring of words and sentences independent from the non-nativeâ€™s first language. Computer Speech and Language, 2009, 23, 65-88.	2.9	54
18	Automatic detection of articulation disorders in children with cleft lip and palate. Journal of the Acoustical Society of America, 2009, 126, 2589-2602.	0.5	53

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19	The Prosody Module. Artificial Intelligence, 2000, , 106-121.	0.7	51
20	"Of All Things the Measure Is Man" : Automatic Classification of Emotions and Inter-Labeler Consistency. , 0, , .		47
21	Convolutional Neural Network to Model Articulation Impairments in Patients with Parkinsonâ€™s Disease. , 0, , .		47
22	Detection of persons with Parkinson's disease by acoustic, vocal, and prosodic analysis. , 2011, , .		46
23	Characterisation of voice quality of Parkinsonâ€™s disease using differential phonological posterior features. Computer Speech and Language, 2017, 46, 196-208.	2.9	46
24	Intelligibility of laryngectomeesâ€™ substitute speech: automatic speech recognition and subjective rating. European Archives of Oto-Rhino-Laryngology, 2006, 263, 188-193.	0.8	44
25	â€œLooks do matterâ€â€”visual attentional biases in adolescent girls with eating disorders viewing body images. Psychiatry Research, 2012, 198, 321-323.	1.7	43
26	A Survey on perceived speaker traits: Personality, likability, pathology, and the first challenge. Computer Speech and Language, 2015, 29, 100-131.	2.9	43
27	Cognitive Determinants of Dysarthria in Parkinson's Disease: An Automated Machine Learning Approach. Movement Disorders, 2021, 36, 2862-2873.	2.2	36
28	Automatic Quantification of Speech Intelligibility of Adults with Oral Squamous Cell Carcinoma. Folia Phoniatrica Et Logopaedica, 2008, 60, 151-156.	0.5	35
29	Objective voice and speech analysis of persons with chronic hoarseness by prosodic analysis of speech samples. Logopedics Phoniatrics Vocology, 2016, 41, 106-116.	0.5	35
30	Automatic Intelligibility Assessment of Speakers After Laryngeal Cancer by Means of Acoustic Modeling. Journal of Voice, 2012, 26, 390-397.	0.6	34
31	Spectral and cepstral analyses for Parkinson's disease detection in Spanish vowels and words. Expert Systems, 2015, 32, 688-697.	2.9	34
32	Automatic Speech Recognition Systems for the Evaluation of Voice and Speech Disorders in Head and Neck Cancer. Eurasip Journal on Audio, Speech, and Music Processing, 2010, 2010, 1-7.	1.3	33
33	Detection of different voice diseases based on the nonlinear characterization of speech signals. Expert Systems With Applications, 2017, 82, 184-195.	4.4	31
34	Integrated recognition of words and prosodic phrase boundaries. Speech Communication, 2002, 36, 81-95.	1.6	26
35	Factors influencing relative speech intelligibility in patients with oral squamous cell carcinoma: a prospective study using automatic, computer-based speech analysis. International Journal of Oral and Maxillofacial Surgery, 2013, 42, 1377-1384.	0.7	26
36	On the use of prosody in automatic dialogue understanding. Speech Communication, 2002, 36, 45-62.	1.6	25

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37	The Recognition of Emotion. Artificial Intelligence, 2000, , 122-130.	0.7	25
38	Analysis of Speech from People with Parkinsonâ€™s Disease through Nonlinear Dynamics. Lecture Notes in Computer Science, 2013, , 112-119.	1.0	24
39	From discourse to pathology: Automatic identification of Parkinson's disease patients via morphological measures across three languages. Cortex, 2020, 132, 191-205.	1.1	24
40	Automatic, computerâ€based speech assessment on edentulous patients with and without complete dentures â€“ preliminary results. Journal of Oral Rehabilitation, 2010, 37, 209-216.	1.3	23
41	Speaker models for monitoring Parkinsonâ€™s disease progression considering different communication channels and acoustic conditions. Speech Communication, 2018, 101, 11-25.	1.6	23
42	Automatic evaluation of prosodic features of tracheoesophageal substitute voice. European Archives of Oto-Rhino-Laryngology, 2007, 264, 1315-1321.	0.8	22
43	Parallel Representation Learning for the Classification of Pathological Speech: Studies on Parkinsonâ€™s Disease and Cleft Lip and Palate. Speech Communication, 2020, 122, 56-67.	1.6	20
44	Automatic Speech Recognition Systems for the Evaluation of Voice and Speech Disorders in Head and Neck Cancer. Eurasip Journal on Audio, Speech, and Music Processing, 2010, 2010, 926951.	1.3	20
45	Phonet: A Tool Based on Gated Recurrent Neural Networks to Extract Phonological Posteriors from Speech. , 0, , .		20
46	Automatic evaluation of parkinson's speech â€” acoustic, prosodic and voice related cues. , 0, , .		19
47	Automatic Quantification of Speech Intelligibility in Patients After Treatment for Oral Squamous Cell Carcinoma. Journal of Oral and Maxillofacial Surgery, 2011, 69, 1493-1500.	0.5	18
48	Speech Production Quality of Cochlear Implant Users with Respect to Duration and Onset of Hearing Loss. Orl, 2017, 79, 282-294.	0.6	18
49	To talk or not to talk with a computer. Journal on Multimodal User Interfaces, 2008, 2, 171-186.	2.0	16
50	Collinearity and Sample Coverage Issues in the Objective Measurement of Vocal Quality: The Case of Roughness and Breathiness. Journal of Speech, Language, and Hearing Research, 2018, 61, 1-24.	0.7	16
51	Age Determination of Children in Preschool and Primary School Age with GMM-Based Supervectors and Support Vector Machines/Regression. Lecture Notes in Computer Science, 2008, , 253-260.	1.0	15
52	Automatic intelligibility assessment of pathologic speech over the telephone. Logopedics Phoniatrics Vocology, 2011, 36, 175-181.	0.5	14
53	Convolutional Neural Networks and a Transfer Learning Strategy to Classify Parkinsonâ€™s Disease from Speech in Three Different Languages. Lecture Notes in Computer Science, 2019, , 697-706.	1.0	14
54	Nonlinear dynamics and PoincarÃ© sections to model gait impairments in different stages of Parkinsonâ€™s disease. Nonlinear Dynamics, 2020, 100, 3253-3276.	2.7	13

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55	Perceptual Analysis of Speech Signals from People with Parkinsonâ€™s Disease. Lecture Notes in Computer Science, 2013, , 201-211.	1.0	13
56	Automatic detection of Parkinson's disease using noise measures of speech. , 2013, , .		11
57	Feature Representation of Pathophysiology of Parkinsonian Dysarthria. , 0, , .		11
58	MOBSY: Integration of vision and dialogue in service robots. Machine Vision and Applications, 2003, 14, 26-34.	1.7	10
59	Automatic Pixel Selection for Optimizing Facial Expression Recognition Using Eigenfaces. Lecture Notes in Computer Science, 2003, , 378-385.	1.0	10
60	Application of Automatic Speech Recognition to Quantitative Assessment of Tracheoesophageal Speech with Different Signal Quality. Folia Phoniatrica Et Logopaedica, 2009, 61, 12-17.	0.5	10
61	Transfer learning helps to improve the accuracy to classify patients with different speech disorders in different languages. Pattern Recognition Letters, 2021, 150, 272-279.	2.6	10
62	Quantification of Segmentation and F0 Errors andÂTheirÂEffectÂonÂEmotionÂRecognition. Lecture Notes in Computer Science, 2008, , 525-534.	1.0	10
63	Intelligibility Rating with Automatic Speech Recognition, Prosodic, and Cepstral Evaluation. Lecture Notes in Computer Science, 2011, , 195-202.	1.0	10
64	Intelligibility of Children with Cleft Lip and Palate: Evaluation by Speech Recognition Techniques. , 2006, , .		9
65	Prosodische Information in der automatischen Spracherkennung. , 1991, , .		9
66	QMOS - a Robust Visualization Method for Speaker Dependencies With Dïï¬€erent Microphones. Journal of Pattern Recognition Research, 2009, 4, 32-51.	0.9	8
67	Boosting of Prosodic and Pronunciation Features to Detect Mispronunciations of Non-Native Children. , 2007, , .		7
68	Associating children's non-verbal and verbal behaviour: Body movements, emotions, and laughter in a human-robot interaction. , 2011, , .		7
69	The Prosody Module. Cognitive Technologies, 2006, , 139-152.	0.5	7
70	New Cues in Low-Frequency of Speech for Automatic Detection of Parkinsonâ€™s Disease. Lecture Notes in Computer Science, 2013, , 283-292.	1.0	7
71	An automatic version of a reading disorder test. ACM Transactions on Speech and Language Processing, 2011, 7, 1-15.	0.9	6
72	Articulation and Empirical Mode Decomposition Features in Diadochokinetic Exercises for the Speech Assessment of Parkinsonâ€™s Disease Patients. Lecture Notes in Computer Science, 2019, , 688-696.	1.0	6

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73	Analysis of Hypernasal Speech in Children withÂCleftÂLipÂandÂPalate. Lecture Notes in Computer Science, 2008, , 389-396.	1.0	6
74	Multilingual Weighted Codebooks forÂNon-nativeÂSpeechÂRecognition. Lecture Notes in Computer Science, 2008, , 485-492.	1.0	6
75	Automatic Evaluation of Tracheoesophageal Substitute Voice: Sustained Vowel versus Standard Text. Folia Phoniatrica Et Logopaedica, 2009, 61, 112-116.	0.5	5
76	Automatic Evaluation of Voice Quality Using Text-Based Laryngograph Measurements and Prosodic Analysis. Computational and Mathematical Methods in Medicine, 2015, 2015, 1-11.	0.7	5
77	Automatic detection of Voice Onset Time in voiceless plosives using gated recurrent units. , 2020, 104, 102779.		5
78	Empirical Mode Decomposition articulation feature extraction on Parkinsonâ€™s Diadochokinesia. Computer Speech and Language, 2022, 72, 101322.	2.9	5
79	Phonological Posteriors and GRU Recurrent Units to Assess Speech Impairments of Patients with Parkinsonâ€™s Disease. Lecture Notes in Computer Science, 2018, , 453-461.	1.0	4
80	Comparison of User Models Based on GMM-UBM and I-Vectors for Speech, Handwriting, and Gait Assessment of Parkinsonâ€™s Disease Patients. , 2020, , .		4
81	Is There Any Additional Information inÂaÂNeural Network Trained forÂPathological Speech Classification?. Lecture Notes in Computer Science, 2021, , 435-447.	1.0	4
82	User State Modeling Based on the Arousal-Valence Plane: Applications in Customer Satisfaction and Health-Care. IEEE Transactions on Affective Computing, 2023, 14, 1533-1546.	5.7	4
83	Automatic boost articulation therapy in adults with dysarthria: Acceptability, usability and user interaction. International Journal of Language and Communication Disorders, 2021, 56, 892-906.	0.7	4
84	Automatic Detection of Parkinsonâ€™s Disease from Compressed Speech Recordings. Lecture Notes in Computer Science, 2015, , 88-95.	1.0	4
85	Can you Understand him? Let's Look at his Word Accuracy - Automatic Evaluation of Tracheoesophageal Speech. , 0, , .		3
86	Does multimodality really help? the classification of emotion and of On/Off-focus in multimodal dialogues - two case studies.. Proceedings ELMAR, 2007, , .	0.0	3
87	Towards a language-independent intelligibility assessment of children with cleft lip and palate. , 2009, , .		3
88	A scalable architecture for multilingual speech recognition on embedded devices. Speech Communication, 2011, 53, 62-74.	1.6	3
89	The FAU Video Lecture Browser system. , 2012, , .		3
90	Automatic phoneme analysis in children with Cleft Lip and Palate. , 2013, , .		3

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91	Transfer Learning to Detect Parkinsonâ€™s Disease from Speech In Different Languages Using Convolutional Neural Networks with Layer Freezing. Lecture Notes in Computer Science, 2020, , 331-339.	1.0	3
92	Influence of Reading Errors on the Text-Based Automatic Evaluation of Pathologic Voices. Lecture Notes in Computer Science, 2008, , 325-332.	1.0	3
93	Comparison and Combination of Confidence Measures. Lecture Notes in Computer Science, 2002, , 181-188.	1.0	3
94	Prosodic Classification of Offtalk: First Experiments. Lecture Notes in Computer Science, 2002, , 357-364.	1.0	3
95	Acoustic Characteristics of VOT in Plosive Consonants Produced by Parkinsonâ€™s Patients. Lecture Notes in Computer Science, 2020, , 303-311.	1.0	3
96	Intelligibility Is More Than a Single Word: Quantification of Speech Intelligibility by ASR and Prosody. , 2007, , 278-285.		3
97	The phonetic footprint of Parkinsonâ€™s disease. Computer Speech and Language, 2022, 72, 101321.	2.9	3
98	Design and implementation of an embedded system for real time analysis of speech from people with Parkinson's disease. , 2013, , .		2
99	Language Independent Assessment of Motor Impairments of Patients with Parkinsonâ€™s Disease Using i-Vectors. Lecture Notes in Computer Science, 2017, , 147-155.	1.0	2
100	Automatic Intelligibility Assessment of Parkinsonâ€™s Disease with Diadochokinetic Exercises. Communications in Computer and Information Science, 2018, , 223-230.	0.4	2
101	3D Tele-Medical Speech Therapy using Time-of-Flight Technology. IFMBE Proceedings, 2009, , 1500-1503.	0.2	2
102	Objective vs.ÂSubjective Evaluation of Speakers with and without Complete Dentures. Lecture Notes in Computer Science, 2009, , 170-177.	1.0	2
103	Automatic Rating of Hoarseness by Text-based Cepstral and Prosodic Evaluation. Lecture Notes in Computer Science, 2012, , 573-580.	1.0	2
104	Automatic Detection and Evaluation of Edentulous Speakers with Insufficient Dentures. Lecture Notes in Computer Science, 2010, , 243-250.	1.0	2
105	Automatic Evaluation of Pathologic Speech â€“ from Research to Routine Clinical Use. , 2007, , 294-301.		2
106	An Extension to the Sammon Mapping for the Robust Visualization of Speaker Dependencies. Lecture Notes in Computer Science, 2008, , 381-388.	1.0	2
107	Speech Recognition with Î¼ -Law Companded Features on Reverberated Signals. Lecture Notes in Computer Science, 2003, , 173-180.	1.0	1
108	Text-based vs. vowel-based automatic evaluation of tracheoesophageal substitute voice. , 2008, , .		1

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109	An automatic screening test for preschool children. , 2009, , .		1
110	Atypical Speech. Eurasip Journal on Audio, Speech, and Music Processing, 2010, 2010, 1-2.	1.3	1
111	Clap your hands! Calibrating spectral subtraction for dereverberation. , 2010, , .		1
112	Improvement of a speech recognizer for standardized medical assessment of children's speech by integration of prior knowledge. , 2010, , .		1
113	Compensation of extrinsic variability in speaker verification systems on simulated Skype and HF channel data. , 2011, , .		1
114	A software kit for automatic voice descrambling. , 2012, , .		1
115	Assessing the Dysarthria Level of Parkinsonâ€™s Disease Patients with GMM-UBM Supervectors Using Phonological Posteriors and Diadochokinetic Exercises. Lecture Notes in Computer Science, 2020, , 356-365.	1.0	1
116	Prosodische Information: Begriffsbestimmung und Nutzen fÃ¼r das Sprachverstehen. Informatik Aktuell, 1997, , 37-52.	0.4	1
117	Towards a Dynamic Adjustment of the Language Weight. Lecture Notes in Computer Science, 2001, , 323-328.	1.0	1
118	A Novel Lecture Browsing System Using Ranked Key Phrases and StreamGraphs. Lecture Notes in Computer Science, 2011, , 17-24.	1.0	1
119	Automatic classification of reading disorders in a single word reading test. , 2009, , .		0
120	Language-Independent Automatic Evaluation of Intelligibility of Chronically Hoarse Persons. Folia Phoniatrica Et Logopaedica, 2014, 66, 219-226.	0.5	0
121	Communication Disorders and Speech Technology. Lecture Notes in Computer Science, 2009, , 15-15.	1.0	0
122	Towards the Automatic Classification of Reading Disorders in Continuous Text Passages. Lecture Notes in Computer Science, 2009, , 282-290.	1.0	0
123	Reliable Detection of Important Word Boundaries Using Prosodic Features. Lecture Notes in Computer Science, 2011, , 259-267.	1.0	0
124	Information Theoretic Based Segments for Language Identification. Lecture Notes in Computer Science, 1999, , 187-192.	1.0	0
125	A Segment Based Approach for Prosodic Boundary Detection?. Lecture Notes in Computer Science, 1999, , 199-202.	1.0	0
126	Subtext Word Accuracy and Prosodic Features forÂAutomatic Intelligibility Assessment. Lecture Notes in Computer Science, 2018, , 473-481.	1.0	0

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127	Bidirectional Alignment of Glottal Pulse Length Sequences for the Evaluation of Pitch Detection Algorithms. Lecture Notes in Computer Science, 2019, , 707-716.	1.0	0
128	Analytical Solution for the Optimal Addition of an Item to a Composite of Scores for Maximum Reliability. Lecture Notes in Computer Science, 2019, , 408-416.	1.0	0
129	Evaluation of GOI Detectors in EGG Signals Assuming Different Models for the Pulse Length Variability. Lecture Notes in Computer Science, 2021, , 434-443.	1.0	0
130	Prosodic Events Recognition in Evaluation ofÂSpeech-SynthesisÂSystemÂPerformance. Lecture Notes in Computer Science, 2008, , 419-426.	1.0	0
131	Applying X-Vectors on Pathological Speech After Larynx Removal. , 2021, , .		0
132	Mensch-Maschine Interaktion fÃ¼r den interventionellen Einsatz. , 2005, , 485-489.		0