

Matthias Gärger

List of Publications by Year in descending order

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76
papers

1,441
citations

471061

17
h-index

377514

34
g-index

86
all docs

86
docs citations

86
times ranked

1658
citing authors

#	ARTICLE	IF	CITATIONS
1	Improving Alarm Performance in the Medical Intensive Care Unit Using Delays and Clinical Context. <i>Anesthesia and Analgesia</i> , 2009, 108, 1546-1552.	1.1	176
2	University of Queensland Vital Signs Dataset. <i>Anesthesia and Analgesia</i> , 2012, 114, 584-589.	1.1	113
3	Medical device alarms. <i>Biomedizinische Technik</i> , 2011, 56, 73-83.	0.9	92
4	Development of mHealth Applications for Pre-Eclampsia Triage. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2014, 18, 1857-1864.	3.9	71
5	Intensive care unit nurses' information needs and recommendations for integrated displays to improve nurses' situation awareness. <i>Journal of the American Medical Informatics Association: JAMIA</i> , 2012, 19, 583-590.	2.2	65
6	Evaluation of the effect of information integration in displays for ICU nurses on situation awareness and task completion time: A prospective randomized controlled study. <i>International Journal of Medical Informatics</i> , 2013, 82, 665-675.	1.6	64
7	Effect of preoperative warming on intraoperative hypothermia: a randomized-controlled trial. <i>Canadian Journal of Anaesthesia</i> , 2018, 65, 1029-1040.	0.7	61
8	Evaluations of Physiological Monitoring Displays: A Systematic Review. <i>Journal of Clinical Monitoring and Computing</i> , 2008, 22, 45-66.	0.7	48
9	Identifying a rapid bolus dose of dexmedetomidine (ED_{50}) with acceptable hemodynamic outcomes in children. <i>Paediatric Anaesthesia</i> , 2014, 24, 1260-1267.	0.6	46
10	Sequential allocation trial design in anesthesia: an introduction to methods, modeling, and clinical applications. <i>Paediatric Anaesthesia</i> , 2017, 27, 240-247.	0.6	44
11	Design and Evaluation of a Closed-Loop Anesthesia System With Robust Control and Safety System. <i>Anesthesia and Analgesia</i> , 2018, 127, 883-894.	1.1	43
12	A majority of uninfected adults show preexisting antibody reactivity against SARS-CoV-2. <i>JCI Insight</i> , 2021, 6, .	2.3	39
13	Clinician-Driven Design of <i>VitalPAD</i>—An Intelligent Monitoring and Communication Device to Improve Patient Safety in the Intensive Care Unit. <i>IEEE Journal of Translational Engineering in Health and Medicine</i> , 2018, 6, 1-14.	2.2	31
14	Evaluation of an integrated intensive care unit monitoring display by critical care fellow physicians. <i>Journal of Clinical Monitoring and Computing</i> , 2012, 26, 429-436.	0.7	27
15	A Far-View Intensive Care Unit Monitoring Display Enables Faster Triage. <i>Dimensions of Critical Care Nursing</i> , 2011, 30, 206-217.	0.4	24
16	Reducing preoperative anxiety with Child Life preparation prior to intravenous induction of anesthesia: A randomized controlled trial. <i>Paediatric Anaesthesia</i> , 2020, 30, 168-180.	0.6	24
17	Preoperative warming and undesired surgical and anesthesia outcomes in pediatric spinal surgery—a retrospective cohort study. <i>Paediatric Anaesthesia</i> , 2016, 26, 866-875.	0.6	21
18	Changes in cardiac index and blood pressure on positioning children prone for scoliosis surgery. <i>Anaesthesia</i> , 2013, 68, 742-746.	1.8	20

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19	A retrospective audit to examine the effectiveness of preoperative warming on hypothermia in spine deformity surgery patients. <i>Paediatric Anaesthesia</i> , 2013, 23, 1054-1061.	0.6	19
20	Developing an objective method for analyzing vital signs changes in neonates during general anesthesia. <i>Paediatric Anaesthesia</i> , 2016, 26, 1071-1081.	0.6	18
21	Dexmedetomidine and hydromorphone: A novel pain management strategy for the oncology ward setting during anti-CD2 immunotherapy for high-risk neuroblastoma in children. <i>Pediatric Blood and Cancer</i> , 2015, 62, 29-34.	0.8	17
22	Optimizing Robust PID Control of Propofol Anesthesia for Children: Design and Clinical Evaluation. <i>IEEE Transactions on Biomedical Engineering</i> , 2019, 66, 2918-2923.	2.5	17
23	What You Need to Know Before Implementing a Clinical Research Data Warehouse: Comparative Review of Integrated Data Repositories in Health Care Institutions. <i>JMIR Formative Research</i> , 2020, 4, e17687.	0.7	17
24	Experience report. , 2013, , .		16
25	An Evaluation of an Expert System for Detecting Critical Events During Anesthesia in a Human Patient Simulator. <i>Anesthesia and Analgesia</i> , 2013, 117, 380-391.	1.1	16
26	In-hospital usability and feasibility evaluation of Panda, an app for the management of pain in children at home. <i>Paediatric Anaesthesia</i> , 2018, 28, 897-905.	0.6	16
27	Mortality Risk Using a Pediatric Quick Sequential (Sepsis-Related) Organ Failure Assessment Varies With Vital Sign Thresholds*. <i>Pediatric Critical Care Medicine</i> , 2018, 19, e394-e402.	0.2	15
28	Zero-heat-flux core temperature monitoring system: an observational secondary analysis to evaluate agreement with naso-/oropharyngeal probe during anesthesia. <i>Journal of Clinical Monitoring and Computing</i> , 2020, 34, 1121-1129.	0.7	15
29	Changes in QT_c associated with a rapid bolus dose of dexmedetomidine in patients receiving TIVA: a retrospective study. <i>Paediatric Anaesthesia</i> , 2015, 25, 1287-1293.	0.6	14
30	Using physiological monitoring data for performance feedback: an initiative using thermoregulation metrics. <i>Canadian Journal of Anaesthesia</i> , 2017, 64, 245-251.	0.7	14
31	A Postoperative Pain Management Mobile App (Panda) for Children at Home After Discharge: Usability and Feasibility. <i>JMIR Perioperative Medicine</i> , 2019, 2, e12305.	0.3	14
32	A Procedural Electroencephalogram Simulator for Evaluation of Anesthesia Monitors. <i>Anesthesia and Analgesia</i> , 2016, 123, 1136-1140.	1.1	12
33	A tool predicting future mean arterial blood pressure values improves the titration of vasoactive drugs. <i>Journal of Clinical Monitoring and Computing</i> , 2010, 24, 223-235.	0.7	11
34	Integrating intraoperative physiology data into outcome analysis for the ACS Pediatric National Surgical Quality Improvement Program. <i>Paediatric Anaesthesia</i> , 2019, 29, 27-37.	0.6	11
35	Empowering Patients Through Virtual Care Delivery: Qualitative Study With Micropractice Clinic Patients and Health Care Providers. <i>JMIR Formative Research</i> , 2022, 6, e32528.	0.7	11
36	Mobile Patient Monitoring for the Pediatric Intensive Care Unit Work Domain Analysis and Rapid Prototyping Results. , 2013, , .		10

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37	Characteristics and Timing of Mortality in Children Dying With Infections in North American PICUs*. <i>Pediatric Critical Care Medicine</i> , 2021, 22, 365-379.	0.2	10
38	Association of dexmedetomidine with recovery room and hospital discharge times: A retrospective cohort analysis. <i>Paediatric Anaesthesia</i> , 2021, 31, 1170-1178.	0.6	10
39	Augmented intelligence in pediatric anesthesia and pediatric critical care. <i>Current Opinion in Anaesthesiology</i> , 2020, 33, 404-410.	0.9	10
40	Feasibility of continuous sedation monitoring in critically ill intensive care unit patients using the NeuroSENSE WAVCNS index. <i>Journal of Clinical Monitoring and Computing</i> , 2018, 32, 1081-1091.	0.7	9
41	The effect of ketamine on depth of hypnosis indices during total intravenous anesthesia—a comparative study using a novel electroencephalography case replay system. <i>Journal of Clinical Monitoring and Computing</i> , 2020, 35, 1027-1036.	0.7	8
42	Effects of Dexmedetomidine on Blood Glucose and Serum Potassium Levels in Children Undergoing General Anesthesia. <i>Anesthesia and Analgesia</i> , 2019, 129, 1093-1099.	1.1	7
43	Intravenous cannula placement in children for induction of general anesthesia: Prospective audit and identification of success factors. <i>Paediatric Anaesthesia</i> , 2020, 30, 874-884.	0.6	7
44	Evaluation of a digital triage platform in Uganda: A quality improvement initiative to reduce the time to antibiotic administration. <i>PLoS ONE</i> , 2020, 15, e0240092.	1.1	7
45	Development and Implementation of the Portable Operating Room Tracker App With Vital Signs Streaming Infrastructure: Operational Feasibility Study. <i>JMIR Perioperative Medicine</i> , 2019, 2, e13559.	0.3	7
46	External Validation of the “Quick” Pediatric Logistic Organ Dysfunction-2 Score Using a Large North American Cohort of Critically Ill Children With Suspected Infection. <i>Pediatric Critical Care Medicine</i> , 2018, 19, 1114-1119.	0.2	6
47	Derivation and internal validation of a data-driven prediction model to guide frontline health workers in triaging children under-five in Nairobi, Kenya. <i>Wellcome Open Research</i> , 2019, 4, 121.	0.9	6
48	Prediction Model Performance With Different Imputation Strategies: A Simulation Study Using a North American ICU Registry. <i>Pediatric Critical Care Medicine</i> , 2022, 23, e29-e44.	0.2	6
49	The Effect of Carbetocin Dose on Transmural Dispersion of Myocardial Repolarization in Healthy Parturients Scheduled for Elective Cesarean Delivery Under Spinal Anesthesia: A Prospective, Randomized Clinical Trial. <i>Anesthesia and Analgesia</i> , 2021, 132, 485-492.	1.1	6
50	Experience report. <i>ACM SIGPLAN Notices</i> , 2013, 48, 357-362.	0.2	5
51	News Article Portrayal of Virtual Care for Health Care Delivery in the First 7 Months of the COVID-19 Pandemic. <i>Telemedicine Reports</i> , 2021, 2, 108-117.	0.5	5
52	Effectiveness of Mobile Apps in Promoting Healthy Behavior Changes and Preventing Obesity in Children: Systematic Review. <i>JMIR Pediatrics and Parenting</i> , 2022, 5, e34967.	0.8	5
53	Has Virtual Care Arrived? A Survey of Rural Canadian Providers During the Early Stages of the COVID-19 Pandemic. <i>Health Services Insights</i> , 2022, 15, 117863292210960.	0.6	5
54	Using machine-to-machine / “Internet of Things” communication to simplify medical device information exchange. , 2014, , .		4

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55	Effects of Dexmedetomidine on Myocardial Repolarization in Children Undergoing General Anesthesia. <i>Anesthesia and Analgesia</i> , 2019, 129, 1100-1108.	1.1	4
56	Effect of ketamine on the NeuroSENSE WAVCNS during propofol anesthesia; a randomized feasibility trial. <i>Journal of Clinical Monitoring and Computing</i> , 2021, 35, 557-567.	0.7	4
57	Anesthesia in the modern world of apps and technology: Implications and impact on wellness. <i>Paediatric Anaesthesia</i> , 2021, 31, 31-38.	0.6	4
58	Derivation and internal validation of a data-driven prediction model to guide frontline health workers in triaging children under-five in Nairobi, Kenya. <i>Wellcome Open Research</i> , 2019, 4, 121.	0.9	4
59	Closed-Loop Control of Total Intravenous Anesthesia During Significant Intraoperative Blood Loss. A & A Case Reports, 2017, 9, 239-243.	0.7	3
60	Evaluating NeuroSENSE for assessing depth of hypnosis during desflurane anesthesia: an adaptive, randomized-controlled trial. <i>Canadian Journal of Anaesthesia</i> , 2020, 67, 324-335.	0.7	3
61	The Effect of Low-Dose Intraoperative Ketamine on Closed-Loop-Controlled General Anesthesia: A Randomized Controlled Equivalence Trial. <i>Anesthesia and Analgesia</i> , 2021, 133, 1215-1224.	1.1	3
62	Data Access and Usage Practices Across a Cohort of Researchers at a Large Tertiary Pediatric Hospital: Qualitative Survey Study. <i>JMIR Medical Informatics</i> , 2018, 6, e32.	1.3	3
63	An Algorithm for Early Detection of Sepsis Using Traditional Statistical Regression Modeling. , 0, , .		3
64	Identification of Requirements for a Postoperative Pediatric Pain Risk Communication Tool: Focus Group Study With Clinicians and Family Members. <i>JMIR Pediatrics and Parenting</i> , 2022, 5, e37353.	0.8	3
65	A Scheme-Based Closed-Loop Anesthesia System. , 2014, , .		2
66	Preferred Functions of Personal Health Records in Rural Primary Health Clinics in Canada: Health Care Team Perspectives. <i>Applied Clinical Informatics</i> , 2021, 12, 041-048.	0.8	2
67	The effect of intraoperative lidocaine infusion on postoperative opioid consumption in adolescents undergoing posterior spinal instrumentation and fusion for idiopathic scoliosis. <i>Spine Journal</i> , 2021, 21, 1047-1048.	0.6	2
68	An Ethnographic Observational Study to Evaluate and Optimize the Use of Respiratory Acoustic Monitoring in Children Receiving Postoperative Opioid Infusions. <i>Anesthesia and Analgesia</i> , 2016, 122, 1132-1140.	1.1	1
69	Grappling With Real-Time Diagnosis and Public Health Surveillance in Sepsis. <i>Pediatric Critical Care Medicine</i> , 2020, 21, 196-197.	0.2	1
70	An Artificial Neural Network-Based Pediatric Mortality Risk Score: Development and Performance Evaluation Using Data From a Large North American Registry. <i>JMIR Medical Informatics</i> , 2021, 9, e24079.	1.3	1
71	Blood pressure nomograms for children undergoing general anesthesia, stratified by age and anesthetic type, using data from a retrospective cohort at a tertiary pediatric center. <i>Journal of Clinical Monitoring and Computing</i> , 2022, 36, 1667-1677.	0.7	1
72	Evaluation of an Ambient Color Coded Display to Communicate Changes in the Patient's Condition to ICU Nurses and Improve the Therapeutic Environment. <i>Proceedings of the Human Factors and Ergonomics Society</i> , 2010, 54, 1566-1570.	0.2	0

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73	In Response. <i>Anesthesia and Analgesia</i> , 2017, 124, 1735-1736.	1.1	0
74	Universal Risk Scores and Local Relevance. <i>Pediatric Critical Care Medicine</i> , 2019, 20, 790-792.	0.2	0
75	Feasibility of Using a Single Heart Rate-Based Measure for Real-time Feedback in a Voluntary Deep Breathing App for Children: Data Collection and Algorithm Development. <i>JMIR Perioperative Medicine</i> , 2020, 3, e16639.	0.3	0
76	Perceptions of Personal Health Records in Rural Primary Health Clinics in Canada – Patient Perspectives. <i>Studies in Health Technology and Informatics</i> , 2021, 284, 285-289.	0.2	0