

André Anjos

HEAD OF THE MEDICAL ARTIFICIAL INTELLIGENCE GROUP, PH.D.



About me

André Anjos leads the Medical AI Group at the Idiap Research Institute, working on machine learning, computer vision, and signal processing for medical decision making, research reproducibility, and open science.

Interests

- Pattern Recognition
- Machine Learning
- Reproducible Research
- Computer Vision
- Signal Processing
- Artificial Intelligence
- Medical AI

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Martigny, Switzerland

Personal

Date of birth: 31.12.1973 (52 years old)
Nationality: Swiss and Brazilian
Family: Married, one child

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PROFESSIONAL EXPERIENCE

- 2018 – present **Scientific Researcher**
Idiap Research Institute
Head of the Medical Artificial Intelligence Group. 📍 Martigny, Switzerland
- 2014 – 2018 **Research Associate**
Idiap Research Institute
Research on biometrics, security and computing. 📍 Martigny, Switzerland
- 2010 – 2013 **Post-doctoral Researcher**
Idiap Research Institute
Research on biometrics, security and computing. 📍 Martigny, Switzerland
- 2004 – 2010 **Research & Development Engineer**
University of Wisconsin, Madison 📍 Wisconsin, USA
• Design, development and maintenance of the ATLAS Trigger and Data Acquisition systems at CERN, Switzerland, deployed and operational on more than 5000 machines at CERN and worldwide.
- 2000 – 2004 **Graduate Student**
Federal University of Rio de Janeiro 📍 Rio de Janeiro, Brazil
Design and development of a novel algorithm for fast physics triggering based on calorimetry, topological mapping and neural networks for the ATLAS Experiment at CERN, Switzerland.
- 1994 – 1999 **Undergraduate Student**
Federal University of Rio de Janeiro 📍 Rio de Janeiro, Brazil
• Sub-optimal filtering for particle discrimination.
• Neural classifiers implemented in a transputer-based parallel machine.
• During a one-year internship at CERN, contributed to early prototypes of the second-level trigger and to what became the final trigger design of the ATLAS experiment.

EDUCATION

- 2001 – 2006 **Ph.D., Electronics Engineering**
Federal University of Rio de Janeiro 📍 Rio de Janeiro, Brazil
Electronics Engineering School (Signal Processing Laboratory), Post-Graduate Program (COPPE). Thesis developed at CERN, Switzerland, in the context of the ATLAS Experiment.
- 2000 – 2001 **M.Sc., Electronics Engineering**
Federal University of Rio de Janeiro 📍 Rio de Janeiro, Brazil
Electronics Engineering School (Signal Processing Laboratory), Post-Graduate Program (COPPE). Thesis developed in the context of the ATLAS-CERN / UFRJ collaboration.
- 1994 – 1999 **Engineer, Electronics Engineering**
Federal University of Rio de Janeiro 📍 Rio de Janeiro, Brazil
Degree from the Electronics Engineering Department.
- 1989 – 1993 **Technician, Electronics**
Federal Center of Technology (CEFET) 📍 Rio de Janeiro, Brazil
Technical course in electronics, taken alongside high-school studies.

RESEARCH AREAS

- 2023–2026 **Ophthalmology — Uveitis**
Hôpital ophtalmique Jules-Gonin (HOJG), Lausanne; University Hospital of Grenoble Alpes; Luzerner Kantonsspital
AI-assisted grading of intraocular inflammation in uveitis from retinal fluorescein angiography, developed with the Jules-Gonin Eye Hospital.
anjos.ai/projects/uveitis
- 2017 **Neurophysiology — Sleep Medicine**
Generalisable, reproducible automatic sleep-stage classification from polysomnography, working toward foundation models for sleep medicine.
anjos.ai/projects/sleep-medicine
- 2023–2026 **Trustworthy and Fair Medical AI**
Federal University of São Paulo (UNIFESP)

Languages

Portuguese	Mother tongue
English	Fluent
French	Fluent, certified C1
Spanish	Basic, reads well

Computer Skills

Linux, macOS, Windows
System and network administration
Structured and object-oriented languages
Concurrent and parallel programming
Large software projects, releases and policies
Revision control, CI, documentation
Database design and use

Making medical AI fair across patient subgroups and useful in the clinic, with evaluation frameworks, foundation-model bias analysis, and utility-fairness trade-offs.
anjos.ai/projects/trustworthy-fair-ai

- 2020–2024 **Ophthalmology — Retinal Image Analysis**
University Hospital of Grenoble Alpes; Idiap Research Institute
Segmentation and analysis of retinal fundus images (vessels, optic disc, blood flow) with minimalistic, reproducible, and clinically deployable models.
anjos.ai/projects/retinal-image-analysis
- 2021–2024 **Radiology — Robust Image Analysis**
Federal University of Rio de Janeiro; University of Zürich; Murabei Data Science, Brazil; University Hospital Basel; Lausanne University Hospital (CHUV); University of Geneva; ETH Zurich
Interpretable, generalisable computer-aided analysis of radiological images — detecting tuberculosis on chest X-rays and extracting stable quantitative biomarkers from CT — built to hold up across scanners and populations.
anjos.ai/projects/tuberculosis-radiology
- 2020–2025 **Epidemiology — Anticipating Risk**
University of Geneva; Polytechnic University of Leiria; Federal University of Rio de Janeiro; State University of Campinas (UNICAMP); Federal University of Lavras
Machine learning on routine clinical records, chest radiographs, and patient-contact networks to flag who is most at risk — from diabetic-foot complications to drug-resistant infection to tuberculosis.
anjos.ai/projects/tuberculosis-epidemiology
- Angiology — Fibromuscular Dysplasia**
CHUV, Lausanne University Hospital
Machine learning for the characterisation and diagnosis of fibromuscular dysplasia, in collaboration with CHUV's angiology department.
anjos.ai/projects/fibromuscular-dysplasia
- 2015–2026 **Reproducible Research and Open Science**
Software suites and open platforms that make computational research repeatable, shareable, extensible, and stable, including the BEAT open-science platform.
anjos.ai/projects/reproducibility
- 2016–2017 **Remote Photoplethysmography and Vital Signs**
Reproducible, camera-based estimation of vital signs, putting remote photoplethysmography on a shared, openly benchmarked footing.
anjos.ai/projects/rppg-vital-signs
- 2011–2019 **Biometrics and Presentation-Attack Detection**
Biometrics Security & Privacy Group, Idiap
Earlier work with the Idiap Biometrics group on robust recognition and presentation-attack detection that generalises to unseen attacks.
anjos.ai/projects/biometrics-pad
- 1998–2009 **High-Energy Physics — ATLAS Trigger (CERN)**
CERN, ATLAS Experiment; Federal University of Rio de Janeiro
Earlier work at CERN's ATLAS experiment on real-time trigger and data-acquisition systems, and neural-network methods for particle recognition.
anjos.ai/projects/hep-cern

GRANTS AND FUNDING

- 2026 – 2030 **IMAGIN-AIR: From Images to Knowledge: AI to Elucidate Mechanisms and Improve Therapeutic Strategies for Retinal Inflammation**
Carigest
www.idiap.ch/en/scientific-research/projects/IMAGIN-AIR
- 2025 – 2028 **AI2Pub: AI Insights to the Public through bi-directional media channels**
Swiss National Science Foundation (Instrument: Agora)
data.snf.ch/grants/grant/232373
- 2024 – 2028 **FairMI: Machine Learning Fairness with Application to Medical Images**
Swiss National Science Foundation (Instrument: Lead Agency)
data.snf.ch/grants/grant/214653
- 2025 – 2027 **DREAM: Detection and Research for Learning Sets on Electroencephalographic Patterns**
Assistance Publique – Hôpitaux de Paris
www.idiap.ch/en/scientific-research/projects/DREAM
- 2025 – 2026 **VALIDATE-H: VALAls aDaptation of Artificial inTelligence modELs in Healthcare**
Service des Hautes Écoles
www.idiap.ch/en/scientific-research/projects/VALIDATE-H
- 2024 – 2025 **CollabCloud: A Collaborative Research Cloud Infrastructure powering Discovery and Exchange**

- Swiss National Science Foundation
data.snf.ch/grants/grant/220409
- 2023 – 2024 **NewsOnAI: Scientific voice to latest news of AI technology**
Swiss National Science Foundation
data.snf.ch/grants/grant/214101
- 2022 – 2023 **CAD4IED: Computer Aided Diagnosis for Inflammatory Eye Diseases**
Idiap Research Institute
www.idiap.ch/en/scientific-research/projects/CAD4IED
- 2019 – 2023 **LEARN-REAL: LEARNing physical manipulation skills with simulators using REAListic variations**
Swiss National Science Foundation (Instrument: CHIST-ERA)
data.snf.ch/grants/grant/180417
- 2022 – 2023 **SECure: Safe and Explainable Clinical AI for Orthopaedic Surgical Assessment**
TheArk
- 2018 – 2021 **ALLIES: Autonomous Lifelong learning intelligent Systems**
Swiss National Science Foundation (Instrument: CHIST-ERA)
data.snf.ch/grants/grant/174239
- 2019 – 2020 **SEWS2: Smart Early Warning Score System for in- and out-hospital care via anomaly detection**
Innosuisse – Swiss Innovation Agency (Instrument: Innovation check)

TEACHING

- 2019–2023 **Master in Artificial Intelligence: Modules M05, M06 and M08**
Idiap & Unidistance
Three modules taught between 2019 and 2023 to master students of the Master in AI run by the Idiap Research Institute with Unidistance: open science and ethics (M05), and machine learning fundamentals (M06 and M08).
- 2013–2023 **Fundamentals of Statistical Pattern Recognition**
EPFL, Lausanne
EE-612 at EPFL: fundamental tools of machine learning and pattern recognition, from basics to deep learning, for Ph.D. students. Given biennially from 2013 to 2023.
- 2022 **IFI/UZH Summer School: From Scripts to Reusable Software and Reproducible Research**
University of Zurich
Summer school at the University of Zurich: actionable guidelines for turning non-reproducible scripts with hard-coded parameters into reusable software, with examples in Python.
- 2015 **Reproducible Research for Pattern Recognition**
UNESP Bauru, Brazil
A hands-on course given at UNESP Bauru, Brazil, on reproducible research for engineers working with software in pattern recognition and machine learning.

SUPERVISION

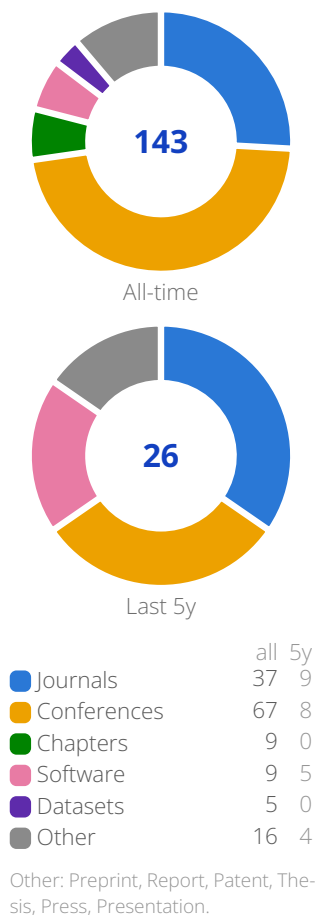
- 2026 **Tymo van Rijn**
Bachelor thesis  Hogeschool Rotterdam
Beyond the Last Frame: Temporal Deep Learning for Automated Grading of Retinal Inflammation in Fluorescein Angiography
www.idiap.ch/~aanjos/pdfs/theses/tymo-van-rijn.pdf
- 2025 **Daniel Lutziger**
Master thesis  University of Zürich, Department of Informatics
Towards Scalable Foundation Models for Sleep EEG and Polysomnography
seafile.ifi.uzh.ch/f/9951eb6cc9c64b0fa330
- 2025 **Maximilian Achakri**
Master thesis  University of Zürich, Department of Informatics
Towards Computer-Aided Diagnosis of Fibromuscular Dysplasia: Abnormality Detection in the Renal Artery Using Deep Learning
www.idiap.ch/~aanjos/pdfs/theses/maximilian-achakri.pdf
- 2025 **Reto Odoni**
Master thesis  University of Zürich, Department of Informatics
Measuring Bias in AI Anatomical Structure Segmentation Models
seafile.ifi.uzh.ch/f/da14adc2a0a14e70964d
- 2025 **Roberto Pulvirenti**
Master thesis  Politecnico di Torino, MSc in Artificial Intelligence & Data Analytics

- Evaluating Cross-Domain Adaptation Strategies for Foundation Models: A Study on Fluorescein Angiography
webthesis.biblio.polito.it/35387/1/tesi.pdf
- 2024 **Joël Inglin**
Master thesis  University of Zürich, Department of Informatics
Stability and Accuracy of Radiomic Features in Medical Image Classification
seafire.ifi.uzh.ch/f/4a5dbaf45523404d860d
- 2024 **Yvan Pannatier**
Master thesis  University of Geneva, Faculty of Science (MSc Computer Science)
Clinically Interpretable Computer-Aided Diagnostic Tool for Fibromuscular Dysplasia Detection
www.idiap.ch/~aanjos/pdfs/theses/yvan-pannatier.pdf
- 2023 **Gabriele Brunini**
Master thesis  University of Zürich, Department of Informatics
Automatic Sleep-Phase Analysis via Stateful Methods
- 2023 **Geoffrey Raposo**
Master thesis  UniDistance, Brig (Master in AI, jointly with Idiap)
Active Tuberculosis Detection from Frontal Chest X-ray Images
http://publications.idiap.ch/attachments/reports/2021/Raposo_Idiap-Com-01-2021.pdf
- 2023 **Özgür Güler**
Master thesis  University of Zürich
Explaining CNN-Based Active Tuberculosis Detection through Saliency Mapping
capuana.ifi.uzh.ch/publications/PDFs/24103_Master_Thesis_oezguer_acar_gueler.pdf
- 2023 **Samuel Michel**
Master thesis  UniDistance, Brig (Master in AI, jointly with Idiap)
Generalizable Automatic Classification of Sleep Stages
publications.idiap.ch/attachments/reports/2023/Michel_Idiap-Com-02-2023.pdf
- 2023 **Victor Amiot**
Master thesis  EPFL, School of Life Sciences
Automatic Grading of Vasculitis Inflammation in Fluorescein Angiography Images
www.idiap.ch/~aanjos/pdfs/theses/victor-amiot-vasculitis.pdf
- 2023 **Xiao Tan**
Master thesis  University of Zürich, Department of Informatics
Semantic Segmentation of Weakly Labeled Retinal Images
capuana.ifi.uzh.ch/publications/PDFs/23611_Xiao%20Tan_thesis.pdf
- 2022 **Antonio Morais**
Master thesis  EPFL, Electrical Engineering
Is System A Statistically Better Than System B?
publidiap.idiap.ch/attachments/reports/2022/Morais_Idiap-Com-01-2023.pdf
- 2022 **Driss Khalil**
Master thesis  UniDistance, Brig (Master in AI, jointly with Idiap)
Computer-Aided Screening for Eye Diseases from 2-D Retinography
www.idiap.ch/~aanjos/pdfs/theses/driss-khalil.pdf
- 2022 **Maxime Délitroz**
Master thesis  EPFL
Automated Segmentation of Developing Motor Neurons in Fluorescence Microscopy
- 2020 **Colombine Verzat**
Master thesis  UniDistance, Brig (Master in AI, jointly with Idiap)
Machine Learning for Adverse-Event Detection in Latent Tuberculosis Treatment
publications.idiap.ch/attachments/reports/2020/Verzat_Idiap-Com-02-2020.pdf
- 2015 **Ivana Chingovska**
De facto co-supervisor  EPFL, Electrical Engineering (doctoral programme, with Idiap)
Trustworthy Biometric Verification under Spoofing Attacks: Application to the Face Mode
publications.idiap.ch/attachments/papers/2016/Chingovska_THESIS_2015.pdf
- 2018 **Jaden Diefenbaugh**
Graduate student  Idiap Research Institute, Switzerland
Work associated with the BEAT platform.
- 2010 – 2013 **Tiago de Freitas Pereira and Jukka Määttä**
Visiting students, co-supervision  Idiap Research Institute, Switzerland
Presentation-attack detection in biometrics.
- 2010 – 2013 **Murali Mohan Chakka**
Trainee, co-supervision  Idiap Research Institute, Switzerland
Presentation-attack detection in biometrics.

Bibliometrics

h-index: 32
Citations: 29'000+
Google Scholar, 2026

Research Outputs



OPEN-SOURCE SOFTWARE

- 2025 **fairical**
A Python library for evaluating and tuning machine-learning systems via multi-objective optimisation, balancing fairness metrics against utility; it approximates Pareto fronts of utility-fairness trade-offs with convergence, diversity, and hypervolume scores.
gitlab.idiap.ch/medai/software/fairical
- 2024 **mednet**
A framework for developing and analysing deep neural network architectures for medical data (2D/3D images and signals), with ready access to many public medical-imaging datasets and extensible model architectures.
gitlab.idiap.ch/medai/software/mednet
- 2023 **clapper**
Configuration and command-line-interface support for Python packages: automatic TOML-based RC configuration storage/retrieval and integration with the Click framework for building CLIs.
github.com/idiap/clapper
- 2023 **credible**
scikit-learn-compatible implementations of machine-learning metrics augmented with credible/confidence intervals, so performance measurements come with quantified uncertainty bounds.
gitlab.idiap.ch/medai/software/credible
- 2023 **auto-intersphinx**
A Sphinx extension that fills intersphinx mappings from package names, removing the need to manually specify dependency documentation URLs and keeping cross-references up to date.
github.com/idiap/auto-intersphinx
- 2017 **sleepless**
A benchmarking package for evaluating machine- and deep-learning techniques on polysomnography biosignals for sleep-stage classification, covering feature extraction, training, prediction, and evaluation across datasets and algorithms.
gitlab.idiap.ch/biosignal/software/sleepless
- 2016 **BEAT**
A web-based open-science platform for running, sharing, and reusing reproducible machine-learning experiments with secure access to data and code, even when the underlying data cannot be published.
gitlab.idiap.ch/beat
- 2015 **Bob**
A free signal-processing and machine-learning toolbox developed at Idiap: a comprehensive, Python-first framework to build, experiment with, and reproduce pattern-recognition and machine-learning workflows.
gitlab.idiap.ch/bob/bob
- 2012 **gridtk**
A user-friendly command-line tool for Slurm job management — a drop-in replacement for sbatch adding local job IDs, automatic log management, monitoring, and simplified job dependencies.
github.com/idiap/gridtk

OPEN DATASETS

- 2019 **WMCA (Wide Multi-Channel presentation Attack)**
doi.org/10.34777/8zdh-v182
- 2016 **COHFACE**
doi.org/10.34777/ff3f-ba56
- 2015 **MSSpoof (Multispectral-Spoof)**
doi.org/10.34777/payf-vb10
- 2012 **Replay-Attack**
doi.org/10.34777/cwgc-7r82
- 2011 **Print-Attack**

JOURNAL ARTICLES

- 2026 V. Amiot, R. Pulvirenti, O. Jimenez-del-Toro, M. Ott, T. Bogaciu, S. Banerjee, C. Amstutz, J. Odobez, C. Chiquet, Y. Guex-Crosier, C. Bergin, I. Meloni, **A. Anjos**, F. Hoogewoud, and M. Tomasoni, "UveAI: clinic-ready scoring of retinal inflammation in uveitis on widefield fluorescein angiography using AI", *Scientific reports*, 2026, doi: [10.1038/s41598-026-46069-w](https://doi.org/10.1038/s41598-026-46069-w).
D. Q. Neto, A. Carlos, **A. Anjos**, and L. Berton, "Fair Foundation Models for Medical Image Analysis: Challenges and Perspectives", *ACM Transactions on Computing for Healthcare*, 2026, doi: [10.1145/3793542](https://doi.org/10.1145/3793542).
- 2025 G. Özbulak, O. Jimenez-del-Toro, M. Faretto, L. Berton, and **A. Anjos**, "A Multi-Objective Evaluation Framework for Analyzing Utility-Fairness Trade-Offs in Machine Learning Systems", *The Journal of Machine Learning for Biomedical Imaging* 3:938-957, 2025, doi: [10.59275/j.melba.2025-ab9a](https://doi.org/10.59275/j.melba.2025-ab9a).
M. Faretto, G. Özbulak, L. Berton, and **A. Anjos**, "Optimizing Fairness and Utility in Healthcare Machine Learning Models", *Applied Soft Computing* 181(113426), 2025, doi: [10.1016/j.asoc.2025.113426](https://doi.org/10.1016/j.asoc.2025.113426).
V. Amiot, O. Jimenez-del-Toro, Y. Guex-Crosier, M. Ott, T. Bogaciu, S. Banerjee, J. Howell, C. Amstutz, C. Chiquet, C. Bergin, I. Meloni, M. Tomasoni, F. Hoogewoud, and **A. Anjos**, "Automatic transformer-based grading of multiple retinal inflammatory signs in uveitis on fluorescein angiography", *Computers in Biology and Medicine* 193:110327, 2025, doi: [10.1016/j.compbiomed.2025.110327](https://doi.org/10.1016/j.compbiomed.2025.110327).
- 2024 T. Mautuit, P. Cunnac, F. Truffer, **A. Anjos**, R. Dufrane, G. Maître, M. Geiser, and C. Chiquet, "Absolute retinal blood flow in healthy eyes and in eyes with retinal vein occlusion", *Microvascular Research* 152:104648, 2024, doi: [10.1016/j.mvr.2023.104648](https://doi.org/10.1016/j.mvr.2023.104648).
- 2023 C. Geric, Z. Z. Qin, C. M. Denking, S. V. Kik, B. Marais, **A. Anjos**, P. David, F. A. Khan, and A. Trajman, "The rise of artificial intelligence reading of chest X-rays for enhanced TB diagnosis and elimination", *The International Journal of Tuberculosis and Lung Disease*, 2023, doi: [10.5588/ijtld.22.0687](https://doi.org/10.5588/ijtld.22.0687).
- 2022 M. Shamsi, A. Larcher, L. Barrault, S. Meignier, Y. Prokopalo, M. Tahon, A. Mehrish, S. Petitrenaud, O. Galibert, S. Gaist, **A. Anjos**, S. Marcel, and M. R. Costa-jussà, "Towards lifelong human assisted speaker diarization", *Computer Speech & Language*:101437, 2022, doi: [10.1016/j.csl.2022.101437](https://doi.org/10.1016/j.csl.2022.101437).
A. Galdran, **A. Anjos**, J. Dolz, H. Chakor, H. Lombaert, and I. B. Ayed, "State-of-the-art retinal vessel segmentation with minimalistic models", *Scientific Reports* 12(1):6174, 2022, doi: [10.1038/s41598-022-09675-y](https://doi.org/10.1038/s41598-022-09675-y).
- 2020 A. C. B. H. Ferreira, D. D. Ferreira, H. C. Oliveira, I. C. de Resende, **A. Anjos**, and M. H. B. M. Lopes, "Competitive neural layer-based method to identify people with high risk for diabetic foot", *Computers in Biology and Medicine* 120:103744, 2020, doi: [10.1016/j.compbiomed.2020.103744](https://doi.org/10.1016/j.compbiomed.2020.103744).
- 2019 T. F. Pereira, **A. Anjos**, and S. Marcel, "Heterogeneous Face Recognition Using Domain Specific Units", *IEEE Transactions on Information Forensics and Security*, 2019, doi: [10.1109/tifs.2018.2885284](https://doi.org/10.1109/tifs.2018.2885284).
A. George, Z. Mostaani, D. Geissenbuhler, O. Nikisins, **A. Anjos**, and S. Marcel, "Biometric Face Presentation Attack Detection with Multi-Channel Convolutional Neural Network", *IEEE Transactions on Information Forensics and Security*, 2019, doi: [10.1109/tifs.2019.2916652](https://doi.org/10.1109/tifs.2019.2916652).
- 2016 A. Morales, J. Fierrez, R. Tolosana, J. Ortega-Garcia, J. Galbally, M. Gomez-Barrero, **A. Anjos**, and S. Marcel, "Keystroke Biometrics Ongoing Competition", *IEEE Access* 4:7736–7746, 2016, doi: [10.1109/access.2016.2626718](https://doi.org/10.1109/access.2016.2626718).
- 2015 I. Chingovska, and **A. Anjos**, "On the use of client identity information for face anti-spoofing", *IEEE Transactions on Information Forensics and Security, Special Issue on Biometric Anti-spoofing* 10(4):787–796, 2015, doi: [10.1109/tifs.2015.2400392](https://doi.org/10.1109/tifs.2015.2400392).
- 2014 T. F. Pereira, J. Komulainen, **A. Anjos**, J. M. De Martino, A. Hadid, M. Pietikainen, and S. Marcel, "Face liveness detection using dynamic texture", *EURASIP Journal on Image and Video Processing* 2014:2, 2014, doi: [10.1186/1687-5281-2014-2](https://doi.org/10.1186/1687-5281-2014-2).
I. Chingovska, **A. Anjos**, and S. Marcel, "Biometrics Evaluation Under Spoofing Attacks", *IEEE Transactions on Information, Forensics and Security* 9(12), 2014, doi: [10.1109/tifs.2014.2349158](https://doi.org/10.1109/tifs.2014.2349158).
- 2013 **A. Anjos**, M. M. Chakka, and S. Marcel, "Motion-Based Counter-Measures to Photo Attacks in Face Recognition", *IET Biometrics*, 2013, doi: [10.1049/iet-bmt.2012.0071](https://doi.org/10.1049/iet-bmt.2012.0071).
- 2009 R. Torres, **A. Anjos**, and J. Seixas, "Automatizing the Online Filter Test Management for a General-Purpose Particle Detector", *Computer Physics Communications*, 2009, doi: [10.1016/j.cpc.2010.10.003](https://doi.org/10.1016/j.cpc.2010.10.003).
- 2008 T. A. Collaboration, G. Aad, E. Abat, J. Abdallah, A. A. Abdelalim, A. Abdesselam, O. Abdinov, B. A. Abi, M. Abolins, H. Abramowicz, E. Acerbi, B. S. Acharya, R. Achenbach, M. Ackers, D. L. Adams, F. Adamyan, T. N. Addy, M. Aderholz, C. Adorisio, P. Adragna, M. Aharrouche, S. P. Ahlen, F. Ahles, A. Ahmad, H. Ahmed, G. Aielli, P. F. Åkesson, T. P. A. Åkesson, A. V. Akimov, S. M. Alam, J. Albert, S. Albrand, M. Aleksa, I. N. Aleksandrov, M. Aleppo, F. Alessandria, C. Alexa, G. Alexander, T. Alexopoulos, G. Alimonti, *et al*, "The ATLAS Experiment at the CERN Large Hadron Collider", *Journal of Instrumentation* 3(08):S08003-S08003, 2008, doi: [10.1088/1748-0221/3/08/S08003](https://doi.org/10.1088/1748-0221/3/08/S08003).
- 2007 T. C. Xavier, **A. Anjos**, and J. M. de Seixas, "Discriminação Neural de Partículas para um Detector Submetido a uma Alta Taxa de Eventos", *Learning and Nonlinear Models - Revista da Sociedade Brasileira de Redes Neurais (SBRN)* 4(2):79–92, 2007, doi: [10.21528/lnlm-vol4-no2-art5](https://doi.org/10.21528/lnlm-vol4-no2-art5).
- 2006 **A. Anjos**, R. C. Torres, J. M. Seixas, B. C. Ferreira, and T. C. Xavier, "Neural triggering system operating on high resolution calorimetry information", *Nuclear Instruments and Methods in Physics Research* 559:134–138, 2006, doi: [10.1016/j.nima.2005.11.132](https://doi.org/10.1016/j.nima.2005.11.132).
A. A. A. Collaboration, "Deployment of the ATLAS High-Level Trigger", *IEEE Transactions on Nuclear Science* 53:2144–2149, 2006, <https://api.zotero.org/users/5992358/publications/items/Q66Z8T7M/file>.
A. A. A. Collaboration, "A configuration system for the ATLAS trigger", *Journal of Instrumentation, Institute of Physics Publishing and Sissa(P05004)*, 2006, <https://api.zotero.org/users/5992358/publications/items/GZP5A97A/file>.
T. A. Collaboration, "The ATLAS Data Acquisition and Trigger : concept, design and status", *Nucl. Phys. B, Proc. Suppl.* 172:178–182, 2006, <https://api.zotero.org/users/5992358/publications/items/JUS44P7I/file>.

- 2005 T. A. Collaboration, "ATLAS DataFlow: the Read-Out Subsystem, Results from Trigger and Data-Acquisition System Testbed Studies and from Modeling", *IEEE Trans. Nucl. Sciences* 53 (2006):912–917, 2005, doi: 10.1109/rtc.2005.1547446.
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