Dr. Yu-Ting Shen

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COUNTRY OF BIRTH **Taiwan**

EDUCATION

Ph.D. in Physics 2011-2018
University of Oklahoma Norman, OK

- Advisor: Patrick Skubic
- Dissertation: Search for electroweak production of supersymmetric states in non-universal Higgs mass model with two extra parameters compressed scenario with the ATLAS detector
- Dissertation link: https://hdl.handle.net/11244/299774

M.S. in Physics 2003-2006
National Taiwan University Taipei, Taiwan

- Advisor: Paoti Chang
- Thesis: Measurements of branching fractions and CP asymmetries in $B \to \phi\phi K$ decays at Belle
- Thesis link: http://www.airitilibrary.com/Publication/alDetailedMesh1?DocID=U0001-1407200616551200
- GPA: 3.86/4.0

B.S. in Physics 1998-2002
Chung Yuan Christian University Chung Li, Taiwan

- Certification of Academic Achievement Award, year 2000-2001
- Certification of Holistic Achievement Award, year 2000-2001
- Certification of Holistic Achievement Award, year 1999-2000
- Certification of Holistic Achievement Award, year 1998-1999
- GPA: 3.53/4.0

EXPERIENCE

Seeloz Inc. 2019/04 - present
Senior Data Scientist San Jose, CA
Responsibilities

- Leading three different teams to create and maintain an AI-based Supply Chain Automation Suite (SCAS), an order forecasting engine, and real-time interactive dashboards to support decision-making processes and data-driven strategies for stakeholders.
- Planning and designing data and model architectures made the analysis of complex multi-stage supply chain and real-time anomaly monitoring more systematic and easier. The efficiency is improved more than 50%.
- Communicating with stakeholders to understand the business challenges and applying critical thinking and problem-solving skills to provide optimized recommendations or insights.

- Manipulating customers' supply chain data to analyze, built and trained machine learning models, statistical models, and other data-driven models to solve business problems and make predictions.
- Participating in the interview process, I am responsible for reviewing resumes of candidates, screening suitable applicants by providing them with take-home exams to assess their data analysis, statistical modeling, and machine learning skills. Once the initial screening of candidates is done, I coordinate and schedule phone interviews and on-site interviews, and ask appropriate interview questions during the interviews. Based on the responses of the interviewees, I make professional and accurate evaluations, and provide feedback to the Chief Technology Officer (CTO) and Vice President (VP) for their reference in the selection of new team members.

Expertise in Data Science

- Analyzed the historical transaction records of Basamh market, a large chain supermarket in Arabia, and built business analysis reports and anomaly detection systems. Extracted and analyzed the root causes of abnormal inventory levels, helping the customer reduce inventory levels by 13%, saving inventory costs, and increasing profits by $1.2 million.
- Visualized sales data from over 100 million transactions spanning 5 years across 85 supermarket branches, extracted key performance indicators (KPIs), and transformed data insights into business intelligence (BI) using Google DataStudio. This became a crucial reference for stakeholders in making data-driven decisions.
- Conducted research on Pharmaniaga's data, a pharmaceutical company in Malaysia. Designed the data architecture to create the SCAS Meta Data Model (MDM) and collaborated with data engineers to develop an ETL (Extract, Transform, Load) pipeline to convert the Oracle database format into MDM format, and deployed converted MDM data on the Google Cloud Platform. This MDM architecture later evolved into the industry standard for SCAS Autonomous Supply Chain Resource Planning.
- Collaborated with the data engineering team to create a customized ETL pipeline for Domino's Pizza franchise in the Middle East. This ETL pipeline eliminated approximately 80% of irrelevant data and generated around 30% of derived data. After cleaning the data, it significantly improved the AP&I model training efficiency by 70% and results in $1.3 million inventory value drop (from $2.82 M to $1.58 M) and annual turnover rate was increased 77% (from 8.63 to 15.33).
- Built a complex network analysis covering 12 warehouses, 22,882 products, 203 suppliers, and 829 customers for Unifi, a global textile solutions company. Through this analysis, 72 key products that significantly impact the company's revenue were identified and were used to build machine learning model. With the assistance of the model, Unifi was able to reduce Cost of Goods Sold (COGS) by $1.44 million (from $20.95 M to $19.51 M) in the first half of 2019. Additionally, inventory value decreased by 27% (from $7.32 M to $5.35 M), and the annual turnover rate increased by 23% (from 5.56 to 6.83).
- Conducted comprehensive time series analysis and forecasting on over 2000 products from Unifi, utilizing a diverse range of modeling techniques including statistical models such as ARIMA, Exponential Smoothing and Prophet, machine learning models such as Random Forest, XGBoost, and LightBGM, as well as a deep learning model like LSTM.

- Conducted high-level statistical analysis methods to study the lead time and safety stock of products from the auto parts manufacturer, Ingress, in Malaysia. Introduced a new concept of dynamic safety stock into the reinforcement learning model to train AI agent 3 million iterations, as a result, the stock outs and lost sales were successfully reduced by 8% to 22% across products.
- Developed a new time series forecasting model specifically for sparse demand data to resolve the issue of divergence by leveraging a double random forest model with postponed action and accomplished a 68% reduction in MAE (Mean Absolute Error).
- Designed a Python-based monitoring dashboard that supports listing model configuration parameters, converting raw data into charts and tables for preliminary analysis and anomaly detection. The dashboard is capable of comparing the results of AI model predictions with historical data to identify the improvements.
- Designed data architecture for oil supply planning and scheduling (OSPAS) to enhance SCAS functionality, enabling autonomous optimization of upstream oil and gas operations, minimizing waste, enhancing ability to handle demand fluctuations, and maximizing sustainability.
- Focused on supply chain management and optimized inventory control to meet customer demands for two bulk plants of the world's largest oil company, Aramco. The goal was to achieve low inventory levels at the bulk plants while minimizing the overall system costs. The system includes one refinery, two bulk plants, one strategic storage depot, four pipelines, and two customers at bulk plant side.

Developments

- Created a data extraction and transformation tool that can convert Gigabytes-level raw data from SAP or Oracle databases into a highly efficient column-wise compression format with flexible encoding schemes. This format has helped to reduce storage requirements by at least 30% on large datasets, in addition to significantly improving scan and deserialization time, resulting in overall cost savings on cloud storages.
- Developed an Python API (Application Programming Interface) offers cross-platform capabilities for accessing cloud storages on GCP, Azure, and AWS. This API was adopted in all Seeloz products and significantly enhanced workflows' efficiency and functionality.
- Developed independently EOQ (Economic Order Quantity), ROP (Reorder Point), and TPOP (Time Phase Ordering Point) models based on supply chain management theories, and integrated them into AP&I framework to expand its functionality, resulting in a fourfold increase in the supported model types.
- Developed the traditional supply chain management model which reduces the execution time from 5 hours to 2 minutes.
- Built a machine learning model using reinforcement learning in the stable-baseline framework to optimize inventory control and management for a single warehouse and single product. Configured the interactions between the reinforcement learning agent and the environment, including the reward feedback mechanism. Utilized historical data from Pharmaniaga to train the reinforcement learning model. After training for 5 million steps on Google AI platform, the agent was able to predict product inventory trends based on state functions and the specified policy, and made decisions and took appropriate actions to avoid excessive inventory resulting in high costs or lost sales due to stock-outs.

- Improved the reinforcement learning model for single warehouse and single product, and designed and implemented a multi-echelon version of the reinforcement learning model for multiple warehouses and a single product. The multi-echelon model takes into account the complex network relationships between warehouses and utilizes deep learning neural networks to compute Q-values.
- Integrated the reinforcement learning based models for single warehouse single product and complex network multi-warehouse single product into the AP&I (Autonomous Procurement & Inventory) framework.

Leadership

- Led a team of 8 data scientists, responsible for developing and maintaining the world's first Artificial Intelligence-based Autonomous Requirements Planning (ARP) engine, which is capable of reducing inefficiencies throughout the entire supply chain. The engine monitors the supply chain to detect anomalies, provides root cause analysis, derives actionable insights, and recommends corrective actions.
- Led a three-person team to design model architecture and build a scalable order forecasting engine, providing optimal solutions for customer's order within 90 days. This order forecasting engine combines time series SARIMA model, Holt-Winters exponential smoothing statistical model, machine learning random forest and XGBoost model, and deep learning Long-Short Term Memory (LSTM) model. As a result, the ability to predict the variety of products increased by over 100 times, and the accuracy of the forecasting results improved by 30%-70%, varying depending on the type of products.
- Provided guidance to junior data scientists on foundational knowledge of the supply chain, data cleaning and analysis technologies for supply chain data, as well as building machine learning and reinforcement learning models using customers' supply chain data.
- As a leader based at the headquarters in Santa Clara, with team members located in Texas, Malaysia, and Pakistan, I am responsible for conducting daily meetings to understand the progress of each team member's work, providing guidance and suggestions, and offering technical support with professional expertise to demonstrate my ability to coordinate and manage members globally.

CERN (Organisation Européenne pour la Recherche Nucléaire)
Data Scientist 2015/03 - 2018/03, Geneva, Switzerland

Responsibilities

- Led the isolated electron efficiency measurement. Developed and performed the tag-and-probe technique on the $Z \to ee$ decay channel to study the properties of the isolated electrons at $\sqrt{s} = 13$ TeV with the ATLAS detector.
- Devised an asymmetrical matrix approach for isolated electron working points that integrates static and dynamic working points for 24 combinations spanning a transverse energy (E_T) range of 150 GeV, achieving an efficiency of up to 99% for isolated electrons.
- Searched for strongly-produced supersymmetric particles in final states with two same-sign or three leptons and jets, and weak production of compressed supersymmetry with two soft leptons and missing transverse momentum p_T^{miss} using 36 fb^{-1} of $\sqrt{s} = 13$ TeV proton-proton collision data.
- Led the measurement of the data-driven real lepton efficiency and developed a new background template method to model the background contamination on data.

- Searched for electroweak production of supersymmetric state in Non-Universal Higgs Mass model (NUHM2) with 2 extra parameters compressed scenario.

Expertise in Data Science and Particle Physics

- Leveraged exceptional expertise to conduct data mining on the extensive ATLAS experimental data, which exceeds 1.5 exabytes (1.5×10^9 GB) and is distributed across more than 170 institutions in 42 countries within the Worldwide LHC Computing Grid (WLCG).
- Developed a powerful ETL (Extract, Transform, Load) program using C++ and Bash shell scripts, capable of efficiently extracting valuable datasets and transforming them into the required ROOT format for high-energy physics research. This ETL program can reduce the data size from 1.5×10^9 GB to 4×10^5 GB (400 terabytes), corresponding to 99.97% reduction rate, within 5 hours.
- Performed Monte Carlo simulations of the electron-rich physics processes in $Z \to ee$ decay channel using C++, ROOT. Successfully implemented the tag-and-probe method to classify tag electrons and probe electrons, with accuracy 98% $\sim$ 99%, by utilizing the decision tree algorithm and Z invariant mass window around 91 GeV/c^2.
- Categorized isolated electrons into 8 categories with 3 isolation levels in each category using the sum of transverse energies of topological clusters $E_T^{cone0.2}$ and the sum of transverse momenta of all tracks $p_T^{varcone0.2}$ around the candidate electron track and originating from the reconstructed primary vertex of the hard collision.
- Reconstructed two same-sign or three leptons with jets candidates using the 36 fb^{-1} proton-proton collision data collected at the ATLAS detector in 2015 and 2016 and performed object selections based on the kinematic, identification, isolation, impact parameter, clustering, pileup mitigation and b-tagging.
- Analyzed data for irreducible background, which mainly come from diboson VV and $t\bar{t}V$, and reducible background, which come from charge-flip and fake non-prompt leptons, to build statistical models to estimate the background contamination and validate with dedicated validation regions VRs.
- Excluded the $m_{1/2} < 650$ GeV region with 95% confidence levels on the cross-section σ as a function of $m_{1/2}$ in the NUHM2 model by analyzing the signal region SR and compare with the Standard Model predicted $pp \to \tilde{g}\tilde{g}$ process.
- Developed a new data-driven background template method to estimate the low p_T leptons to extract the high purity of prompt leptons using the data generated by the $Z \to \ell\ell$ process. Found the prompt lepton contamination ranging from 0.44% to 4.04% for various p_T and pseudorapidity η.
- Derived the real lepton efficiency as a function of p_T, $|\eta|$ and $\Delta R(\ell, jet)$, where p_T ranging from 0 to 200 GeV, $|\eta| < 2.01$ with crack region removal, and $\Delta R(\ell, jet) < 0.4$.
- Implemented the NUHM2 model with $m_0 = 5$ TeV, $m_A = 1$ TeV, $A_0 = -1.6m_0$, $\tan\beta = 15$ and $\mu = 150$ GeV in ISAJET and PROSPINO to generated SUSY signal MC samples with $m_{1/2}$ ranging from 350 GeV to 800 GeV and produced the mass spectra of charginos $\tilde{\chi}^{\pm}_{1,2}$ and neutralinos $\tilde{\chi}^0_{1,2,3,4}$, and mass splitting spectra of electroweakinos.
- Analyzed MC and experimental data to build statistical model for identifying and reconstructing electrons, muons, and jets candidates. The signal candidates are further improved by utilizing discriminating variables to suppress $\sim$98% backgrounds.

- Extended the cross section upper limit to $\sigma_{UL} = 11.5$ and 3.8 pb for $m_{1/2} = 350$ GeV and $m_{1/2} = 800$ GeV for the NUHM2 scenario with 95% CL.

Research Achievement

- Completed the training at the ATLAS Control Center and became a qualified experiment monitor, responsible for monitoring the operation of the calorimeters (including the Electromagnetic calorimeter, Hadronic calorimeter, and Forward calorimeter) in the ATLAS experiment.
- Became an expert in electron isolation research within the ATLAS collaboration, and was invited to give a presentation at the ATLAS e/gamma workshop held at Laboratoire d'Annecy de Physique des Particules (LAPP) in France in 2015, and again invited to speak at a conference in Thessaloniki, Greece in 2016.
- My research findings on isolated electron efficiency measurement have become the standard within the ATLAS collaboration, and have been adopted in nearly 400 research topics which electrons participate in the interaction.
- Presented my research findings in isolated electron efficiency, real lepton efficiency, and supersymmetric particles at 5 conferences and have published 18 ATLAS internal papers.

Leadership

- Supervised a doctoral student at the University of Glasgow in research on isolated electron efficiency measurement.
- As the primary researcher of the Non-Universal Higgs Mass model with 2 extra parameters (NUHM2) project, I have led University of Oklahoma in becoming a leader in this research topic.

University of Oklahoma
PostDoc Research 2018/05-2019/04, Norman, OK

- Continued research on the Non-Universal Higgs Mass Model with 2 extra parameters (NUHM2) to search strong interaction and weak interaction supersymmetric particles in collaboration with the University of Valencia in Spain and Louisiana Tech University in the United States, and establish University of Oklahoma leadership position in this research topic.
- Compiled the research achievements of the University of Oklahoma High Energy Physics group and created a research abstract poster as one of the proposal documents for applying for a three-year grant from the department of energy.

Graduate Research Assistant 2013/08-2015/03, Norman, OK

- Analyzed ATLAS experimental data, mainly focusing on the supersymmetric particles research, including collaborating with French postdoctoral researchers and theoretical physicists in the United States, and serving as the primary role of data analysis in the team.
- Supervised new doctoral students on how to use C++, Python, and ROOT to establish data analysis pipelines and build particle classification models for their data analysis projects.
- Because of outstanding research abilities, I was selected by my advisor to be a doctoral researcher and data scientist located at the European Organization for Nuclear Research (CERN) in Swiss for research in supersymmetric particle

physics. At CERN, I participated in E/γ and same-sign diboson supersymmetry physics research groups with the ATLAS experiment and was responsible for data analysis, experimental monitoring, and result reporting. I also attended many international conferences and seminars, exchanging ideas and the latest research results with other researchers. My work was highly praised by international peers and published in several well-known physics journals.

Graduate Teaching Assistant 2011/08-2013/08, Norman, OK

- Graduate Teaching Assistant for 6 semesters in both undergraduate and graduate courses. These courses included Fundamental Physics 1 and 2, Quantum Physics 1 and 2, Solid State Physics 1, Quantum Mechanics 1 and 2, and Physics and Life. Helped professors to grade undergraduate and graduate students homework, exams and tutored students in lecture hours.

Academia Sinica 2009/07-2011/07
Research Scientist
Responsibilities

- Participated in the TEXONO experiment, which mainly focuses on researching low energy neutrino and dark matter physics. My responsibilities include maintaining the experiment's cooling system, constructing the pipeline for remote data management and access, developing programs for Monte Carlo (MC) simulation, analyzing data to build statistical and machine learning model and extract signal, assisting in the establishment of the database, and guiding new team members.

Expertise in Data Science

- Used exploratory data analysis techniques to analyze the experiment data and discovered serious bugs in the existing Monte Carlo (MC) simulation program. Therefore, I rewrote a new bug-free MC simulation program for high-purity germanium detector using C++ and GEANT4, which simulates all possible physical reactions of charged and uncharged particles passing through a germanium detector in the experimental environment. The new MC simulation program significantly improved the simulation accuracy by 70%.
- Implemented the cutting-edge decision tree method to create machine learning classification models to distinguish between signal and background events. This method reduced 50% $\sim$ 80% of the background noise, resulting in a significant increase in signal significance and figure of merit (FOM) in the sub-keV energy region.
- Implemented and optimized various selection criteria, for example, cosmic ray vetos and anti compton vetos, and charged particle positions resulting in 90% of suppression factor.
- Conducted thorough study of underground neutrino experiments worldwide and incorporated the data analysis techniques used in those experiments into the TEXONO experiment, resulting in the number of signal event candidates increased by an order of magnitude.

Experiment Setups

- Invited to the China Jinping Underground Laboratory (CJPL) for Dark Matter Experiments in Sichuan, China to assist Tsinghua University in establishing a neutrino experiment facility similar to the TEXONO experiment. Helped Tsinghua University to design and build a Cosmic Ray Veto system which recorded a factor of two improvement for cosmic ray background suppression.

- Installed detachable shielding structure made of OFHC copper for the anti-Compton detectors.
- Negotiated and communicated with Kuo-Sheng power plant, telecommunications companies, and power plants to establish a dedicated data channel exclusively for the TEXONO experiment, facilitating remote access and control of the experimental facility by the research team at Academia Sinica.
- Assisted data engineers in setting up RAID (redundant array of independent disks) disk arrays and constructed NoSQL databases to store the TEXONO experimental data.

Leadership

- Supervised a new Indian doctoral student and an exchange master's student from Tianjin University on how to perform data analysis for the TEXONO experiment.
- Led a team for maintaining the cooling system for the TEXONO experiment and cross functional communicated between the liquid nitrogen manufacturer and Kuo-Sheng power plant for cooling schedule plan.

TSMC (Taiwan Semiconductor Manufacturing Company) 2006/12-2009/02
R&D Engineer

Responsibilities

- Led 7 projects in which my main responsibilities included establishing experiments for high-voltage integrated circuit devices, collecting experimental data for data analysis, and creating circuit models to predict the performance of various high-voltage integrated circuit devices, such as MOSEFET, BJT, Diode, Capacitor, Resistor, and Back-end, under various operating conditions.
- Visualized the experimental and model results as graphs and wrote explanatory documents detailing the specifications, operating ranges, and usage scenarios of each electronic component.
- Created knowledge database, standard operating procedures (SOP) and automate the modeling steps for the department.
- Provided technical support to company's clients and other department.

Expertise in Data Science

- Developed a data analysis pipeline using Excel VBA to automate the data analysis process, reducing the model variance caused by human error by 5% $\sim$ 10%. And taught my colleagues how to implement this pipeline into their ongoing projects. This data analysis process pipeline successfully improved 30% $\sim$ 50% productivity efficiency.
- Independently created C++ programs to build regression models to fit the capacitor and resistor experimental data in Unix operation system and release the programs to the team members. This program dramatically reduced the capacitor and resistor models delivery time form 2 days to 5 hours.
- Built BSIM4 models for MOSFET and BJT to extract model parameters and used high-level statistical methods to build statistical models for various electronic devices, ensuring that the model's predicted results fall within a 95% confidence interval.

Experiment Setups

- Assisted manufacturers in installing two probe stations for measurement in two laboratory, testing the equipment's operation, and accepting the equipment after passing the test.
- Wrote automated testing programs for the probe station, including scheduling and device patterns finding, to enable the probe station to quickly locate the correct measuring components and begin automated measurements, saving approximately 30% of measurement time.
- Created standard operating procedures (SOP) for measuring components. Then this SOP became the department standard and all the team members have to follow the SOP for the measurement.

Leadership

- Project manager for seven important projects, was responsible for cross-departmental communication and negotiation, arranging meetings, and allocating resources to the projects. Discussed the scope and models' specifications for each project with different departments and clients. The projects I have managed included mix-mode and BCD HV SPICE Model projects using the state-of-the-art semiconductor processes such as 0.13 μm, 0.18 μm, 0.20 μm, 0.25 μm, 0.35 μm, 0.6 μm, and 0.99 μm
- Lead engineer in the High-Voltage SPICE (Simulation Program with Integrated Circuit Emphasis) team, developed several standard operating procedures (SOP) for experimental measurement, data analysis, model building, and document writing for team members to follow.
- Supervised three new colleagues in the department and provided hands-on guidance to quickly familiarize them with the work environment, workflow, data architecture, and cutting-dege analysis techniques and high level statistical methods, also provided technical guidance and supports as needed.

ACADEMIC ACTIVITIES AND PRESENTATIONS

- Electron Isolation Efficiency Measurement - Presented at ATLAS e/gamma workshop 2015, Annecy-le-Vieux, France (2015)
- Participant, ATLAS SUSY workshop 2016, Brighton, UK (2016)
- Electron Isolation Efficiency and Scale Factor Measurement - Invited presentation at ATLAS e/gamma workshop 2016, Thessaloniki Greece, (2016)
- Non-Universal Higgs Mass Model with 2 Extra parameters in the Electroweak Interaction with 2 or 3 leptons - Poster session presented at ATLAS Exotics-SUSY Workshop, Bucharest, Romania (2017)
- Participant, The 2017 European School of High-Energy Physics, Evora, Portugal (2017)

AWARDS

- Won first place in Eve of Nations competition, University of Oklahoma, Norman, OK (2014)
- Won Graduate student thesis Awards, The Physical Society of Taiwan (2006)
- Won Holistic Achievement Award, Chung Yuan Christian University, Chung Li, Taiwan 1998 - 1999.
- Holistic Achievement Award, Chung Yuan Christian University, Chung Li, Taiwan, 1999 - 2000.
- Holistic Achievement Award, Chung Yuan Christian University, Chung Li, Taiwan, 2000 - 2001

- Academic Achievement Award, Chung Yuan Christian University, Chung Li, Taiwan, 2001 - 2002
  Only top 3 students in the graduating class from each college nominated for membership.

TECHNOLOGY SKILLS

Programming language: Python, C/C++, Bash shell script, Scala
Machine learning: scikit-learn, Apache Spark, Keras, TensorFlow, PyTorch
Reinforcement learning: Gym, Stable-Baseline, Ray
Database: SQL, Big Query, PostgreSQL, TablePlus, Incorta
Visualization: matplotlib, seaborn, bokeh, plotly
Dashboard: Google DataStudio, Tableau, Power BI, Dash
Big Data: Apache Hadoop, Hive, Cloudera
Cloud: Google Cloud Platform, Microsoft Azure, Amazon AWS
Others: Git, Jira, Docker

LEADERSHIP

President 2012-2013, Norman, OK
Taiwanese Student Association (TSA) at the University of Oklahoma

- Organized several TSA events in campus to promote Taiwanese culture and cuisine
- Organized joint events with the Taiwanese Community in Oklahoma
- Led TSA to win the first place of the Eve of Nation at the University of Oklahoma.

PUBLICATIONS

Link to Google Scholar
`https://scholar.google.com/citations?hl=en&user=bn6yCS0AAAAJ`
Link to INSPIRE HEP
`https://inspirehep.net/authors/1385815`

CERN & Uinversity of Oklahoma: 392 publications
Name on the Publication: **Yu-Ting Shen(Oklahoma U.)**

- Jet energy scale measurements and their systematic uncertainties in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.D 96 (2017) 7, 072002
  ◇ 880 citations
- Combined measurements of Higgs boson production and decay using up to 80 fb^{-1} of proton-proton collision data at $\sqrt{s} = 13$ TeV collected with the ATLAS experiment
  ◇ Published in: Phys.Rev.D 101 (2020) 1, 012002
  ◇ 562 citations
- Performance of missing transverse momentum reconstruction with the ATLAS detector using proton-proton collisions at $\sqrt{s} = 13$ TeV
  ◇ Published in: Eur.Phys.J.C 78 (2018) 11, 903
  ◇ 552 citations
- Observation of Higgs boson production in association with a top quark pair at the LHC with the ATLAS detector
  ◇ Published in: Phys.Lett.B 784 (2018) 173-191
  ◇ 548 citations
- Electron and photon performance measurements with the ATLAS detector using the 2015–2017 LHC proton-proton collision data

◇ Published in: JINST 14 (2019) 12, P12006
◇ 519 citations

- ATLAS b-jet identification performance and efficiency measurement with $t\bar{t}$ events in pp collisions at $\sqrt{s} = 13$ TeV
  ◇ Published in: Eur.Phys.J.C 79 (2019) 11, 970
  ◇ 487 citations
- Observation of $H \to b\bar{b}$ decays and VH production with the ATLAS detector
  ◇ Published in: Phys.Lett.B 786 (2018) 59-86
  ◇ 479 citations
- Search for new high-mass phenomena in the dilepton final state using 36 fb^{-1} of proton-proton collision data at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 10 (2017) 182
  ◇ 449 citations
- Jet reconstruction and performance using particle flow with the ATLAS Detector
  ◇ Published in: Eur.Phys.J.C 77 (2017) 7, 466
  ◇ 437 citations
- Measurement of the W-boson mass in pp collisions at $\sqrt{s} = 7$ TeV
  ◇ Published in: Eur.Phys.J.C 78 (2018) 2, 110, Eur.Phys.J.C 78 (2018) 11, 898 (erratum)
  ◇ 411 citations
- Electron reconstruction and identification in the ATLAS experiment using the 2015 and 2016 LHC proton-proton collision data at $\sqrt{s} = 13$ TeV
  ◇ Published in: Eur.Phys.J.C 79 (2019) 8, 639
  ◇ 406 citations
- Search for dark matter and other new phenomena in events with an energetic jet and large missing transverse momentum using the ATLAS detector
  ◇ Published in: JHEP 01 (2018) 126
  ◇ 383 citations
- Measurements of Higgs boson properties in the diphoton decay channel with 36 fb^{-1} of pp collision data at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.D 98 (2018) 052005
  ◇ 354 citations
- Search for high-mass dilepton resonances using 139 fb^{-1} of pp collision data collected at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 796 (2019) 68-87
  ◇ 342 citations
- Performance of the ATLAS Track Reconstruction Algorithms in Dense Environments in LHC Run 2
  ◇ Published in: Eur.Phys.J.C 77 (2017) 10, 673
  ◇ 340 citations
- Search for new phenomena in dijet events using 37 fb^{-1} pp collision data collected at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.D 96 (2017) 5, 052004
  ◇ 338 citations
- Performance of electron and photon triggers in ATLAS during LHC Run 2
  ◇ Published in: Eur.Phys.J.C 80 (2020) 1, 47
  ◇ 330 citations

- Search for additional heavy neutral Higgs and gauge bosons in the ditau final state produced in 36 fb^{-1} of pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 01 (2018) 055
  ◇ 310 citations
- Measurements of b-jet tagging efficiency with the ATLAS detector using $t\bar{t}$ events at $\sqrt{s} = 13$
  ◇ Published in: JHEP 08 (2018) 089
  ◇ 303 citations
- ATLAS data quality operations and performance for 2015–2018 data-taking
  ◇ Published in: JINST 15 (2020) 04, P04003
  ◇ 295 citations
- Evidence for light-by-light scattering in heavy-ion collisions with the ATLAS detector at the LHC
  ◇ Published in: Nature Phys. 13 (2017) 9, 852-858
  ◇ 293 citations
- Jet energy scale and resolution measured in proton–proton collisions at $\sqrt{s} = 13$ with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 81 (2021) 8, 689
  ◇ 281 citations
- Performance of the ATLAS muon triggers in Run 2
  ◇ Published in: JINST 15 (2020) 09, P09015
  ◇ 267 citations
- Evidence for the $H \to b\bar{b}$ decay with the ATLAS detector
  ◇ Published in: JHEP 12 (2017) 024
  ◇ 259 citations
- Search for squarks and gluinos in final states with jets and missing transverse momentum using 36 fb^{-1} of $\sqrt{s} = 13$ TeV pp collision data with the ATLAS detector
  ◇ Published in: Phys.Rev.D 97 (2018) 11, 112001
  ◇ 254 citations
- Search for electroweak production of charginos and sleptons decaying into final states with two leptons and missing transverse momentum in $\sqrt{s} = 13$ TeV pp collisions using the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 80 (2020) 2, 123
  ◇ 251 citations
- Muon reconstruction and identification efficiency in ATLAS using the full Run 2 pp collision data set at $\sqrt{s} = 13$ TeV
  ◇ Published in: Eur.Phys.J.C 81 (2021) 7, 578
  ◇ 249 citations
- Electron and photon energy calibration with the ATLAS detector using 2015–2016 LHC proton-proton collision data
  ◇ Published in: JINST 14 (2019) 03, P03017
  ◇ 225 citations
- Search for electroweak production of supersymmetric particles in final states with two or three leptons at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 78 (2018) 12, 995
  ◇ 225 citations

- Cross-section measurements of the Higgs boson decaying into a pair of τ leptons in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.D 99 (2019) 072001
  ◇ 223 citations
- Search for the standard model Higgs boson produced in association with top quarks and decaying into a $b\bar{b}$ pair in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.D 97 (2018) 7, 072016
  ◇ 220 citations
- Combination of the searches for pair-produced vector-like partners of the third-generation quarks at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.Lett. 121 (2018) 21, 211801
  ◇ 213 citations
- Combination of searches for Higgs boson pairs in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 800 (2020) 135103
  ◇ 212 citations
- Measurement of the Higgs boson mass in the $H \to ZZ^* \to 4\ell$ and $H \to \gamma\gamma$ channels with $\sqrt{s} = 13$ TeV pp collisions using the ATLAS detector
  ◇ Published in: Phys.Lett.B 784 (2018) 345-366
  ◇ 211 citations
- Search for heavy Higgs bosons decaying into two tau leptons with the ATLAS detector using pp collisions at $\sqrt{s} = 13$ TeV
  ◇ Published in: Phys.Rev.Lett. 125 (2020) 5, 051801
  ◇ 211 citations
- Search for new phenomena in high-mass diphoton final states using 37 fb^{-1} of proton–proton collisions collected at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 775 (2017) 105-125
  ◇ 210 citations
- Search for pair production of Higgs bosons in the $b\bar{b}b\bar{b}$ final state using proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 01 (2019) 030
  ◇ 209 citations
- Evidence for the associated production of the Higgs boson and a top quark pair with the ATLAS detector
  ◇ Published in: Phys.Rev.D 97 (2018) 7, 072003
  ◇ 206 citations
- Study of the rare decays of B_0^s and B^0 mesons into muon pairs using data collected during 2015 and 2016 with the ATLAS detector
  ◇ Published in: JHEP 04 (2019) 098
  ◇ 204 citations
- Measurement of the Higgs boson coupling properties in the $H \to ZZ^* \to 4\ell$ decay channel at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 03 (2018) 095
  ◇ 202 citations
- Angular analysis of $B_d^0 \to K^*\mu^+\mu^-$ decays in pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector
  ◇ Published in: JHEP 10 (2018) 047
  ◇ 201 citations

- Search for long-lived charginos based on a disappearing-track signature in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 06 (2018) 022
  ◇ 197 citations
- Search for doubly charged Higgs boson production in multi-lepton final states with the ATLAS detector using proton–proton collisions at $\sqrt{s} = 13$ TeV
  ◇ Published in: Eur.Phys.J.C 78 (2018) 3, 199
  ◇ 189 citations
- Search for long-lived, massive particles in events with displaced vertices and missing transverse momentum in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector
  ◇ Published in: Phys.Rev.D 97 (2018) 5, 052012
  ◇ 189 citations
- Search for a scalar partner of the top quark in the jets plus missing transverse momentum final state at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 12 (2017) 085
  ◇ 186 citations
- Combination of searches for invisible Higgs boson decays with the ATLAS experiment
  ◇ Published in: Phys.Rev.Lett. 122 (2019) 23, 231801
  ◇ 184 citations
- Search for top-squark pair production in final states with one lepton, jets, and missing transverse momentum using 36 fb^{-1} of $\sqrt{s} = 13$ TeV pp collision data with the ATLAS detector ◇ Published in: JHEP 06 (2018) 108 ◇ 183 citations
- Searches for electroweak production of supersymmetric particles with compressed mass spectra in $\sqrt{s} = 13$ TeV pp collision data with the ATLAS detector
  ◇ Published in: Phys.Rev.D 101 (2020) 5, 052005
  ◇ 180 citations
- Measurement of the photon identification efficiencies with the ATLAS detector using LHC Run 2 data collected in 2015 and 2016
  ◇ Published in: Eur.Phys.J.C 79 (2019) 3, 205
  ◇ 179 citations
- Search for charged Higgs bosons decaying via $H^{\pm} \to \tau^{\pm}\nu_{\tau}$ in the τ+jets and τ+lepton final states with 36 fb^{-1} of pp collision data recorded at $\sqrt{s} = 13$ TeV with the ATLAS experiment
  ◇ Published in: JHEP 09 (2018) 139 ◇ 178 citations
- Measurement of the photon identification efficiencies with the ATLAS detector using LHC Run 2 data collected in 2015 and 2016
  ◇ Published in: Eur.Phys.J.C 79 (2019) 3, 205
  ◇ 179 citations
- Search for charged Higgs bosons decaying via $H^{\pm} \to \tau^{\pm}\nu_{\tau}$ in the τ+jets and τ+lepton final states with 36 fb^{-1} of pp collision data recorded at $\sqrt{s} = 13$ TeV with the ATLAS experiment
  ◇ Published in: JHEP 09 (2018) 139
  ◇ 178 citations
- A search for the dimuon decay of the Standard Model Higgs boson with the ATLAS detector
  ◇ Published in: Phys.Lett.B 812 (2021) 135980
  ◇ 177 citations

- Measurement of the nuclear modification factor for inclusive jets in Pb+Pb collisions at $sqrt(s_{NN}) = 5.02$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 790 (2019) 108-128
  ◇ 176 citations
- Measurement of the near-threshold e+ e- —¿ D(*)+- D(*)-+ cross section using initial-state radiation
  ◇ Published in: Phys.Rev.Lett. 98 (2007) 092001
  ◇ 175 citations
- Search for electroweak production of supersymmetric states in scenarios with compressed mass spectra at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.D 97 (2018) 5, 052010
  ◇ 171 citations
- Search for heavy resonances decaying into a W or Z boson and a Higgs boson in final states with leptons and b-jets in 36 fb^{-1} of $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector
  ◇ Published in: JHEP 03 (2018) 174, JHEP 11 (2018) 051 (erratum)
  ◇ 165 citations
- Search for heavy resonances decaying into WW in the $e\nu\mu\nu$ final state in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 78 (2018) 1, 24
  ◇ 163 citations
- Search for dark matter at $\sqrt{s} = 13$ TeV in final states containing an energetic photon and large missing transverse momentum with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 77 (2017) 6, 393
  ◇ 161 citations
- Search for new resonances in mass distributions of jet pairs using 139 fb^{-1} of pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 03 (2020) 145
  ◇ 156 citations
- Measurement of the $t\bar{t}Z$ and $t\bar{t}W$ cross sections in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.D 99 (2019) 7, 072009
  ◇ 156 citations
- Measurements of gluon-gluon fusion and vector-boson fusion Higgs boson production cross-sections in the $H \to WW^* \to e\nu\mu\nu$ decay channel in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 789 (2019) 508-529
  ◇ 155 citations
- Search for heavy neutral leptons in decays of W bosons produced in 13 TeV pp collisions using prompt and displaced signatures with the ATLAS detector
  ◇ Published in: JHEP 10 (2019) 265
  ◇ 154 citations
- Search for an invisibly decaying Higgs boson or dark matter candidates produced in association with a Z boson in pp collisions at $\sqrt{s} = 13$ with the ATLAS detector
  ◇ Published in: Phys.Lett.B 776 (2018) 318-337
  ◇ 154 citations
- Search for heavy ZZ resonances in the $\ell^+\ell^-\ell^+\ell^-$ and $\ell^+\ell^-\nu\bar{n}u$ final states using proton–proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector

◇ Published in: Eur.Phys.J.C 78 (2018) 4, 293
◇ 147 citations

- Search for charged Higgs bosons decaying into top and bottom quarks at $\sqrt{s} =$ 13 TeV with the ATLAS detector
  ◇ Published in: JHEP 11 (2018) 085
  ◇ 146 citations
- Search for resonant and non-resonant Higgs boson pair production in the $b\bar{b}\tau^+\tau^-$ decay channel in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.Lett. 121 (2018) 19, 191801, Phys.Rev.Lett. 122 (2019) 8, 089901 (erratum)
  ◇ 145 citations
- Search for Higgs boson pair production in the $\gamma\gamma b\bar{b}$ final state with 13 TeV pp collision data collected by the ATLAS experiment
  ◇ Published in: JHEP 11 (2018) 040
  ◇ 144 citations
- Constraints on mediator-based dark matter and scalar dark energy models using $\sqrt{s} = 13$ TeV pp collision data collected by the ATLAS detector
  ◇ Published in: JHEP 05 (2019) 142
  ◇ 143 citations
- Observation of light-by-light scattering in ultraperipheral Pb+Pb collisions with the ATLAS detector
  ◇ Published in: Phys.Rev.Lett. 123 (2019) 5, 052001
  ◇ 141 citations
- Search for heavy particles decaying into top-quark pairs using lepton-plus-jets events in proton–proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 78 (2018) 7, 565
  ◇ 141 citations
- Experimental constraints on the possible J**P quantum numbers of the Lambda(c)(2880)+
  ◇ Published in: Phys.Rev.Lett. 98 (2007) 262001
  ◇ 137 citations
- Search for low-mass dijet resonances using trigger-level jets with the ATLAS detector in pp collisions at $\sqrt{s} = 13$ TeV
  ◇ Published in: Phys.Rev.Lett. 121 (2018) 8, 081801
  ◇ 136 citations
- Search for new phenomena in events with same-charge leptons and b-jets in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 12 (2018) 039
  ◇ 134 citations
- Search for new phenomena in events with an energetic jet and missing transverse momentum in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.D 103 (2021) 11, 112006
  ◇ 133 citations
- Measurement of the top quark mass in the $t\bar{t} \to$ lepton+jets channel from $\sqrt{s} = 8$ TeV ATLAS data and combination with previous results
  ◇ Published in: Eur.Phys.J.C 79 (2019) 4, 290
  ◇ 131 citations
- Combination of searches for heavy resonances decaying into bosonic and leptonic final states using 36 fb^{-1} of proton-proton collision data at $\sqrt{s} = 13$ TeV with the ATLAS detector

◇ Published in: Phys.Rev.D 98 (2018) 5, 052008
◇ 131 citations

- Search for supersymmetry in final states with two same-sign or three leptons and jets using 36 fb^{-1} of $\sqrt{s}$ = 13 TeV pp collision data with the ATLAS detector
  ◇ Published in: JHEP 09 (2017) 084, JHEP 08 (2019) 121 (erratum)
  ◇ 128 citations
- Search for heavy charged long-lived particles in the ATLAS detector in 36.1 fb^{-1} of proton-proton collision data at $\sqrt{s} = 13$ TeV
  ◇ Published in: Phys.Rev.D 99 (2019) 9, 092007
  ◇ 128 citations
- Search for the Decay of the Higgs Boson to Charm Quarks with the ATLAS Experiment
  ◇ Published in: Phys.Rev.Lett. 120 (2018) 21, 211802
  ◇ 127 citations
- Measurements of WH and ZH production in the $H \to b\bar{b}$ decay channel in pp collisions at 13 TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 81 (2021) 2, 178
  ◇ 127 citations
- Measurement of inclusive and differential cross sections in the $H \to ZZ^* \to 4\ell$ decay channel in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 10 (2017) 132
  ◇ 127 citations
- Higgs boson production cross-section measurements and their EFT interpretation in the 4ℓ decay channel at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 80 (2020) 10, 957, Eur.Phys.J.C 81 (2021) 1, 29 (erratum), Eur.Phys.J.C 81 (2021) 5, 398 (erratum)
  ◇ 126 citations
- Search for WW/WZ resonance production in $\ell\nu qq$ final states in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 03 (2018) 042
  ◇ 124 citations
- Measurement of multi-particle azimuthal correlations in pp, p+Pb and low-multiplicity Pb+Pb collisions with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 77 (2017) 6, 428
  ◇ 124 citations
- Constraints on off-shell Higgs boson production and the Higgs boson total width in $ZZ \to 4\ell$ and $ZZ \to 2\ell 2\nu$ final states with the ATLAS detector
  ◇ Published in: Phys.Lett.B 786 (2018) 223-244
  ◇ 123 citations
- Search for Heavy Higgs Bosons A/H Decaying to a Top Quark Pair in pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS Detector
  ◇ Published in: Phys.Rev.Lett. 119 (2017) 19, 191803
  ◇ 122 citations
- Search for dark matter produced in association with bottom or top quarks in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 78 (2018) 1, 18
  ◇ 122 citations

- Performance of top-quark and W-boson tagging with ATLAS in Run 2 of the LHC
  ◇ Published in: Eur.Phys.J.C 79 (2019) 5, 375
  ◇ 118 citations
- Search for pair production of heavy vector-like quarks decaying to high-p_T W bosons and b quarks in the lepton-plus-jets final state in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 10 (2017) 141
  ◇ 116 citations
- Identification and rejection of pile-up jets at high pseudorapidity with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 77 (2017) 9, 580, Eur.Phys.J.C 77 (2017) 10, 712 (erratum)
  ◇ 115 citations
- Searches for heavy ZZ and ZW resonances in the $\ell\ell qq$ and $\nu\nu qq$ final states in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 03 (2018) 009
  ◇ 115 citations
- Search for Dark Matter Produced in Association with a Higgs Boson Decaying to $b\bar{b}$ using 36 fb^{-1} of pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS Detector
  ◇ Published in: Phys.Rev.Lett. 119 (2017) 18, 181804
  ◇ 114 citations
- Operation of the ATLAS trigger system in Run 2
  ◇ Published in: JINST 15 (2020) 10, P10004
  ◇ 114 citations
- In situ calibration of large-radius jet energy and mass in 13 TeV proton–proton collisions with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 79 (2019) 2, 135
  ◇ 114 citations
- Measurement of quarkonium production in proton–lead and proton–proton collisions at 5.02 TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 78 (2018) 3, 171
  ◇ 114 citations
- Measurement of $W^{\pm}Z$ production cross sections and gauge boson polarisation in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 79 (2019) 6, 535
  ◇ 113 citations
- Searches for third-generation scalar leptoquarks in $\sqrt{s} = 13$ pp collisions with the ATLAS detector
  ◇ Published in: JHEP 06 (2019) 144
  ◇ 112 citations
- Observation of electroweak production of a same-sign W boson pair in association with two jets in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.Lett. 123 (2019) 16, 161801
  ◇ 111 citations
- Search for the dimuon decay of the Higgs boson in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.Lett. 119 (2017) 5, 051802
  ◇ 111 citations

- Search for the dimuon decay of the Higgs boson in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.Lett. 119 (2017) 5, 051802
  ◇ 111 citations
- Search for a heavy charged boson in events with a charged lepton and missing transverse momentum from pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.D 100 (2019) 5, 052013
  ◇ 111 citations
- Measurement of long-range multiparticle azimuthal correlations with the subevent cumulant method in pp and p+Pbcollisions with the ATLAS detector at the CERN Large Hadron Collider
  ◇ Published in: Phys.Rev.C 97 (2018) 2, 024904
  ◇ 111 citations
- CP Properties of Higgs Boson Interactions with Top Quarks in the $t\bar{t}H$ and tH Processes Using $H \to \gamma\gamma$ with the ATLAS Detector
  ◇ Published in: Phys.Rev.Lett. 125 (2020) 6, 061802
  ◇ 110 citations
- Prompt and non-prompt J/ψ and $\psi(2S)$ suppression at high transverse momentum in 5.02 TeV Pb+Pb collisions with the ATLAS experiment
  ◇ Published in: Eur.Phys.J.C 78 (2018) 9, 762
  ◇ 109 citations
- Search for pair production of up-type vector-like quarks and for four-top-quark events in final states with multiple b-jets with the ATLAS detector
  ◇ Published in: JHEP 07 (2018) 089
  ◇ 108 citations
- Search for dark matter in events with a hadronically decaying vector boson and missing transverse momentum in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 10 (2018) 180
  ◇ 108 citations
- Measurements of $t\bar{t}$ differential cross-sections of highly boosted top quarks decaying to all-hadronic final states in pp collisions at $\sqrt{s} = 13$ TeV using the ATLAS detector
  ◇ Published in: Phys.Rev.D 98 (2018) 1, 012003
  ◇ 107 citations
- Search for chargino-neutralino production using recursive jigsaw reconstruction in final states with two or three charged leptons in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.D 98 (2018) 9, 092012
  ◇ 107 citations
- Search for pair production of vector-like top quarks in events with one lepton, jets, and missing transverse momentum in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector
  ◇ Published in: JHEP 08 (2017) 052
  ◇ 107 citations
- Search for direct top squark pair production in final states with two leptons in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 77 (2017) 12, 898
  ◇ 106 citations

- Measurement of the Soft-Drop Jet Mass in pp Collisions at $\sqrt{s} = 13$ TeV with the ATLAS Detector
  ◇ Published in: Phys.Rev.Lett. 121 (2018) 9, 092001
  ◇ 106 citations
- Search for pairs of scalar leptoquarks decaying into quarks and electrons or muons in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector
  ◇ Published in: JHEP 10 (2020) 112
  ◇ 104 citations
- Search for light resonances decaying to boosted quark pairs and produced in association with a photon or a jet in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 788 (2019) 316-335
  ◇ 103 citations
- Search for Higgs boson decays to beyond-the-Standard-Model light bosons in four-lepton events with the ATLAS detector at $\sqrt{s} = 13$ TeV
  ◇ Published in: JHEP 06 (2018) 166
  ◇ 103 citations
- Searches for the $Z\gamma$ decay mode of the Higgs boson and for new high-mass resonances in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 10 (2017) 112
  ◇ 103 citations
- Search for a scalar partner of the top quark in the all-hadronic $t\bar{t}$ plus missing transverse momentum final state at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 80 (2020) 8, 737
  ◇ 103 citations
- Measurement of the $t\bar{t}$ production cross-section and lepton differential distributions in $e\mu$ dilepton events from pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 80 (2020) 6, 528
  ◇ 101 citations
- Search for a heavy Higgs boson decaying into a Z boson and another heavy Higgs boson in the $\ell\ell bb$ final state in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 783 (2018) 392-414
  ◇ 101 citations
- Measurement of the cross section for inclusive isolated-photon production in pp collisions at $\sqrt{s} = 13$ TeV using the ATLAS detector
  ◇ Published in: Phys.Lett.B 770 (2017) 473-493
  ◇ 101 citations
- Search for a new heavy gauge boson resonance decaying into a lepton and missing transverse momentum in 36 fb^{-1} of pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS experiment
  ◇ Published in: Eur.Phys.J.C 78 (2018) 5, 401
  ◇ 100 citations
- A search for pair-produced resonances in four-jet final states at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 78 (2018) 3, 250
  ◇ 100 citations
- $ZZ \to \ell^+\ell^-\ell'^+\ell'^-$ cross-section measurements and search for anomalous triple gauge couplings in 13 TeV pp collisions with the ATLAS detector

◇ Published in: Phys.Rev.D 97 (2018) 3, 032005
◇ 99 citations

- Search for diboson resonances with boson-tagged jets in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 777 (2018) 91-113
  ◇ 99 citations
- Measurement of inclusive jet and dijet cross-sections in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 05 (2018) 195
  ◇ 98 citations
- Search for pair- and single-production of vector-like quarks in final states with at least one Z boson decaying into a pair of electrons or muons in ppcollision data collected with the ATLAS detector at $\sqrt{s} = 13$ TeV
  ◇ Published in: Phys.Rev.D 98 (2018) 11, 112010
  ◇ 94 citations
- Search for invisible Higgs boson decays in vector boson fusion at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 793 (2019) 499-519
  ◇ 94 citations
- Search for long-lived particles produced in pp collisions at $\sqrt{s} = 13$ TeV that decay into displaced hadronic jets in the ATLAS muon spectrometer
  ◇ Published in: Phys.Rev.D 99 (2019) 5, 052005
  ◇ 93 citations
- Search for heavy Majorana or Dirac neutrinos and right-handed W gauge bosons in final states with two charged leptons and two jets at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 01 (2019) 016
  ◇ 92 citations
- Search for the Higgs boson produced in association with a vector boson and decaying into two spin-zero particles in the $H \to aa \to 4b$ channel in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 10 (2018) 031
  ◇ 92 citations
- Study of the material of the ATLAS inner detector for Run 2 of the LHC
  ◇ Published in: JINST 12 (2017) 12, P12009
  ◇ 91 citations
- Measurements of the Higgs boson inclusive and differential fiducial cross sections in the 4ℓ decay channel at $\sqrt{s} = 13$ TeV
  ◇ Published in: Eur.Phys.J.C 80 (2020) 10, 942
  ◇ 90 citations
- Measurement of longitudinal flow decorrelations in Pb+Pb collisions at $\sqrt{s_{NN}} =$ 2.76 and 5.02 TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 78 (2018) 2, 142
  ◇ 90 citations
- Search for long-lived neutral particles in pp collisions at $\sqrt{s} = 13$ TeV that decay into displaced hadronic jets in the ATLAS calorimeter
  ◇ Published in: Eur.Phys.J.C 79 (2019) 6, 481
  ◇ 89 citations

- Observation of electroweak $W^{\pm}Z$ boson pair production in association with two jets in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 793 (2019) 469-492
  ◇ 88 citations
- Search for supersymmetry in final states with missing transverse momentum and multiple b-jets in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 06 (2018) 107
  ◇ 88 citations
- Measurement of jet fragmentation in Pb+Pb and pp collisions at $\sqrt{s_{NN}} = 5.02$ TeV with the ATLAS detector ◇ Published in: Phys.Rev.C 98 (2018) 2, 024908
  ◇ 88 citations
- Search for Higgs boson pair production in the $\gamma\gamma WW^*$ channel using ppcollision data recorded at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 78 (2018) 12, 1007
  ◇ 87 citations
- Measurements of top-quark pair differential cross-sections in the lepton+jets channel in pp collisions at $\sqrt{s} = 13$ TeV using the ATLAS detector
  ◇ Published in: JHEP 11 (2017) 191
  ◇ 86 citations
- Search for heavy resonances decaying into a pair of Z bosons in the $\ell^+\ell^-\ell'^+\ell'^-$ and $\ell^+\ell^-\nu\bar{\nu}u$ final states using 139 fb^{-1} of proton–proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 81 (2021) 4, 332
  ◇ 86 citations
- Search for doubly charged scalar bosons decaying into same-sign W boson pairs with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 79 (2019) 1, 58
  ◇ 85 citations
- Search for heavy diboson resonances in semileptonic final states in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 80 (2020) 12, 1165
  ◇ 84 citations
- Measurements of inclusive and differential fiducial cross-sections of $t\bar{t}$ production with additional heavy-flavour jets in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 04 (2019) 046
  ◇ 84 citations
- Measurement of the top-quark mass in $t\bar{t}$+1-jet events collected with the ATLAS detector in pp collisions at $\sqrt{s} = 8$ TeV
  ◇ Published in: JHEP 11 (2019) 150
  ◇ 84 citations
- Search for Higgs boson pair production in the $b\bar{b}WW*$ decay mode at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 04 (2019) 092
  ◇ 84 citations
- Search for supersymmetry in events with b-tagged jets and missing transverse momentum in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 11 (2017) 195
  ◇ 84 citations

- Search for the $HH \to b\bar{b}b\bar{b}$ process via vector-boson fusion production using proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 07 (2020) 108, JHEP 01 (2021) 145 (erratum), JHEP 05 (2021) 207 (erratum)
  ◇ 84 citations
- Measurement of fiducial and differential W^+W^- production cross-sections at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 79 (2019) 10, 884
  ◇ 84 citations
- Measurement of the production cross-section of a single top quark in association with a Z boson in proton–proton collisions at 13 TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 780 (2018) 557-577
  ◇ 84 citations
- Measurement of the azimuthal anisotropy of charged particles produced in $\sqrt{s_{NN}} = 5.02$ TeV Pb+Pb collisions with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 78 (2018) 12, 997
  ◇ 4 citations
- Search for top quark decays $t \to qH$, with $H \to \gamma\gamma$ in $\sqrt{s} = 13$ TeV pp collisions using the ATLAS detector
  ◇ Published in: JHEP 10 (2017) 129
  ◇ 83 citations
- Measurement of the Drell-Yan triple-differential cross section in pp collisions at $\sqrt{s} = 8$ TeV
  ◇ Published in: JHEP 12 (2017) 059
  ◇ 83 citations
- Search for squarks and gluinos in final states with jets and missing transverse momentum using 139 fb^{-1} of $\sqrt{s} = 13$ TeV ppcollision data with the ATLAS detector
  ◇ Published in: JHEP 02 (2021) 143
  ◇ 82 citations
- Dijet resonance search with weak supervision using $\sqrt{s} = 13$ TeV pp collisions in the ATLAS detector
  ◇ Published in: Phys.Rev.Lett. 125 (2020) 13, 131801
  ◇ 82 citations
- Observation of centrality-dependent acoplanarity for muon pairs produced via two-photon scattering in Pb+Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.Lett. 121 (2018) 21, 212301
  ◇ 80 citations
- Search for heavy resonances decaying to a W or Z boson and a Higgs boson in the $q\bar{q}^{(\prime)}b\bar{b}$ final state in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 774 (2017) 494-515
  ◇ 80 citations
- Search for supersymmetry in events with four or more leptons in $\sqrt{s} = 13$ TeV pp collisions with ATLAS
  ◇ Published in: Phys.Rev.D 98 (2018) 3, 032009
  ◇ 79 citations
- Measurement of lepton differential distributions and the top quark mass in $t\bar{t}$ production in pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector

◇ Published in: Eur.Phys.J.C 77 (2017) 11, 804
◇ 78 citations

- Search for direct production of electroweakinos in final states with one lepton, missing transverse momentum and a Higgs boson decaying into two b-jets in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 80 (2020) 8, 691
  ◇ 78 citations
- Combined measurement of differential and total cross sections in the $H \to \gamma\gamma$ and the $H \to ZZ \to 4\ell$ decay channels at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 786 (2018) 114-133
  ◇ 78 citations
- Search for pair production of heavy vector-like quarks decaying into hadronic final states in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.D 98 (2018) 9, 092005
  ◇ 78 citations
- Search for four-top-quark production in the single-lepton and opposite-sign dilepton final states in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.D 99 (2019) 5, 052009
  ◇ 77 citations
- Search for chargino-neutralino production with mass splittings near the electroweak scale in three-lepton final states in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector
  ◇ Published in: Phys.Rev.D 101 (2020) 7, 072001
  ◇ 77 citations
- Search for flavour-changing neutral current top-quark decays $t \to qZ$ in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 07 (2018) 176
  ◇ 76 citations
- Search for dark matter in association with a Higgs boson decaying to two photons at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.D 96 (2017) 11, 112004
  ◇ 76 citations
- Search for the direct production of charginos and neutralinos in final states with tau leptons in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 78 (2018) 2, 154
  ◇ 76 citations
- Measurement of soft-drop jet observables in pp collisions with the ATLAS detector at $\sqrt{s} = 13$ TeV
  ◇ Published in: Phys.Rev.D 101 (2020) 5, 052007
  ◇ 75 citations
- Search for the Higgs boson decays $H \to ee$ and $H \to e\mu$ in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 801 (2020) 135148
  ◇ 75 citations
- Measurement of light-by-light scattering and search for axion-like particles with 2.2 nb^{-1} of Pb+Pb data with the ATLAS detector
  ◇ Published in: JHEP 11 (2021) 050 (erratum), JHEP 03 (2021) 243
  ◇ 75 citations

- Search for pair production of heavy vector-like quarks decaying into high-p_T W bosons and top quarks in the lepton-plus-jets final state in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 08 (2018) 048
  ◇ 75 citations
- Search for direct stau production in events with two hadronic τ-leptons in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector
  ◇ Published in: Phys.Rev.D 101 (2020) 3, 032009
  ◇ 74 citations
- Performance of the ATLAS Transition Radiation Tracker in Run 1 of the LHC: tracker properties
  ◇ Published in: JINST 12 (2017) 05, P05002
  ◇ 74 citations
- Search for Higgs bosons produced via vector-boson fusion and decaying into bottom quark pairs in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector
  ◇ Published in: Phys.Rev.D 98 (2018) 5, 052003
  ◇ 73 citations
- Search for long-lived particles in final states with displaced dimuon vertices in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.D 99 (2019) 1, 012001
  ◇ 73 citations
- Measurement of the exclusive $\gamma\gamma \to \mu^+\mu^-$ process in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 777 (2018) 303-323
  ◇ 72 citations
- Search for diboson resonances in hadronic final states in 139 fb^{-1} of pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 09 (2019) 091, JHEP 06 (2020) 042 (erratum)
  ◇ 72 citations
- A search for the $Z\gamma$ decay mode of the Higgs boson in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 809 (2020) 135754
  ◇ 71 citations
- Search for Higgs boson pair production in the $WW^{(*)}WW^{(*)}$ decay channel using ATLAS data recorded at $\sqrt{s} = 13$ TeV
  ◇ Published in: JHEP 05 (2019) 124
  ◇ 71 citations
- Measurement of photon–jet transverse momentum correlations in 5.02 TeV Pb + Pb and pp collisions with ATLAS
  ◇ Published in: Phys.Lett.B 789 (2019) 167-190
  ◇ 71 citations
- Search for low-mass resonances decaying into two jets and produced in association with a photon using pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 795 (2019) 56-75
  ◇ 71 citations
- Search for High-Mass Resonances Decaying to $\tau\nu$ in pp Collisions at $\sqrt{s} = 13$ TeV with the ATLAS Detector
  ◇ Published in: Phys.Rev.Lett. 120 (2018) 16, 161802
  ◇ 70 citations

- Search for chargino and neutralino production in final states with a Higgs boson and missing transverse momentum at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.D 100 (2019) 1, 012006
  ◇ 70 citations
- Studies of $Z\gamma$ production in association with a high-mass dijet system in pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector
  ◇ Published in: JHEP 07 (2017) 107
  ◇ 70 citations
- Measurements of inclusive and differential fiducial cross-sections of $t\bar{t}\gamma$ production in leptonic final states at $\sqrt{s} = 13$ in ATLAS
  ◇ Published in: Eur.Phys.J.C 79 (2019) 5, 382
  ◇ 69 citations
- Search for squarks and gluinos in events with an isolated lepton, jets, and missing transverse momentum at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.D 96 (2017) 11, 112010
  ◇ 69 citations
- Searches for lepton-flavour-violating decays of the Higgs boson in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector
  ◇ Published in: Phys.Lett.B 800 (2020) 135069
  ◇ 69 citations
- Search for top-quark decays $t \to Hq$ with 36 fb^{-1} of ppcollision data at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 05 (2019) 123
  ◇ 68 citations
- Measurement of the transverse momentum distribution of Drell–Yan lepton pairs in proton–proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 80 (2020) 7, 616
  ◇ 68 citations
- Search for single production of vector-like quarks decaying into Wb in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 05 (2019) 164
  ◇ 68 citations
- Performance of the missing transverse momentum triggers for the ATLAS detector during Run-2 data taking
  ◇ Published in: JHEP 08 (2020) 080
  ◇ 68 citations
- Search for photonic signatures of gauge-mediated supersymmetry in 13 TeV pp collisions with the ATLAS detector
  ◇ Published in: Phys.Rev.D 97 (2018) 9, 092006
  ◇ 67 citations
- Search for pair production of third-generation scalar leptoquarks decaying into a top quark and a τ-lepton in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 06 (2021) 179
  ◇ 67 citations
- Search for Higgs boson decays into a pair of light bosons in the $bb\mu\mu$ final state in ppcollision at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 790 (2019) 1-21
  ◇ 67 citations

- Search for heavy neutral Higgs bosons produced in association with b-quarks and decaying into b-quarks at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.D 102 (2020) 3, 032004
  ◇ 66 citations
- Search for squarks and gluinos in final states with same-sign leptons and jets using 139 fb^{-1} of data collected with the ATLAS detector
  ◇ Published in: JHEP 06 (2020) 046
  ◇ 66 citations
- Measurement of differential cross sections and W^+/W^- cross-section ratios for W boson production in association with jets at $\sqrt{s} = 8$ TeV with the ATLAS detector
  ◇ Published in: JHEP 05 (2018) 077, JHEP 10 (2020) 048 (erratum)
  ◇ 66 citations
- Searches for scalar leptoquarks and differential cross-section measurements in dilepton-dijet events in proton-proton collisions at a centre-of-mass energy of $\sqrt{s} = 13$ TeV with the ATLAS experiment
  ◇ Published in: Eur.Phys.J.C 79 (2019) 9, 733
  ◇ 66 citations
- Search for resonances in the mass distribution of jet pairs with one or two jets identified as b-jets in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.D 98 (2018) 032016
  ◇ 66 citations
- Measurements of top-quark pair spin correlations in the $e\mu$ channel at $\sqrt{s} = 13$ TeV using pp collisions in the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 80 (2020) 8, 754
  ◇ 66 citations
- Measurement of VH, $H \to b\bar{b}$ production as a function of the vector-boson transverse momentum in 13 TeV pp collisions with the ATLAS detector
  ◇ Published in: JHEP 05 (2019) 141
  ◇ 66 citations
- Search for light long-lived neutral particles produced in pp collisions at $\sqrt{s} = 13$ TeV and decaying into collimated leptons or light hadrons with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 80 (2020) 5, 450
  ◇ 66 citations
- Observation of the associated production of a top quark and a Z boson in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 07 (2020) 124
  ◇ 66 citations
- Determination of jet calibration and energy resolution in proton-proton collisions at $\sqrt{s} = 8$ TeV using the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 80 (2020) 12, 1104
  ◇ 65 citations
- Searches for exclusive Higgs and Z boson decays into $J/\psi\gamma, \psi(2S)\gamma$, and $\Upsilon(nS)\gamma$ at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 786 (2018) 134-155
  ◇ 65 citations
- Search for new phenomena in a lepton plus high jet multiplicity final state with the ATLAS experiment using $\sqrt{s} = 13$ TeV proton-proton collision data

◇ Published in: JHEP 09 (2017) 088
◇ 63 citations

- Measurement of the associated production of a Higgs boson decaying into b-quarks with a vector boson at high transverse momentum in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 816 (2021) 136204
  ◇ 62 citations
- Measurement of charged-particle distributions sensitive to the underlying event in $\sqrt{s} = 13$ TeV proton-proton collisions with the ATLAS detector at the LHC
  ◇ Published in: JHEP 03 (2017) 157
  ◇ 62 citations
- Search for heavy particles decaying into a top-quark pair in the fully hadronic final state in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.D 99 (2019) 9, 092004
  ◇ 62 citations
- Measurements of top-quark pair to Z-boson cross-section ratios at $\sqrt{s} = 13, 8, 7$ TeV with the ATLAS detector
  ◇ Published in: JHEP 02 (2017) 117
  ◇ 61 citations
- Measurement of the $t\bar{t}$ production cross-section in the lepton+jets channel at $\sqrt{s} = 13$ TeV with the ATLAS experiment
  ◇ Published in: Phys.Lett.B 810 (2020) 135797
  ◇ 60 citations
- Search for doubly and singly charged Higgs bosons decaying into vector bosons in multi-lepton final states with the ATLAS detector using proton-proton collisions at $\sqrt{s} = 13$ TeV
  ◇ Published in: JHEP 06 (2021) 146
  ◇ 60 citations
- Determination of the strong coupling constant α_s from transverse energy–energy correlations in multijet events at $\sqrt{s} = 8$ TeV using the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 77 (2017) 12, 872
  ◇ 60 citations
- Search for a right-handed gauge boson decaying into a high-momentum heavy neutrino and a charged lepton in pp collisions with the ATLAS detector at $\sqrt{s} = 13$ TeV
  ◇ Published in: Phys.Lett.B 798 (2019) 134942
  ◇ 60 citations
- Comparison of Fragmentation Functions for Jets Dominated by Light Quarks and Gluons from $pp$and Pb+Pb Collisions in ATLAS
  ◇ Published in: Phys.Rev.Lett. 123 (2019) 4, 042001
  ◇ 60 citations
- Test of the universality of τ and μ lepton couplings in W-boson decays with the ATLAS detector
  ◇ Published in: Nature Phys. 17 (2021) 7, 813-818
  ◇ 59 citations
- Measurement of the $t\bar{t}\gamma$ production cross section in proton-proton collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector
  ◇ Published in: JHEP 11 (2017) 086
  ◇ 59 citations

- Search for non-resonant Higgs boson pair production in the $bb\ell\nu\ell\nu$ final state with the ATLAS detector in pp collisions at $\sqrt{s} = 13$ TeV
  ◇ Published in: Phys.Lett.B 801 (2020) 135145
  ◇ 59 citations
- Measurement of the Lund Jet Plane Using Charged Particles in 13 TeV Proton-Proton Collisions with the ATLAS Detector
  ◇ Published in: Phys.Rev.Lett. 124 (2020) 22, 222002
  ◇ 58 citations
- Search for a Structure in the $B_s^0\pi^\pm$ Invariant Mass Spectrum with the ATLAS Experiment
  ◇ Published in: Phys.Rev.Lett. 120 (2018) 20, 202007
  ◇ 57 citations
- Search for exclusive Higgs and Z boson decays to $\phi\gamma$ and $\rho\gamma$ with the ATLAS detector
  ◇ Published in: JHEP 07 (2018) 127
  ◇ 57 citations
- Search for $W' \to tb$ decays in the hadronic final state using pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 781 (2018) 327-348
  ◇ 57 citations
- Measurement of flow harmonics correlations with mean transverse momentum in lead-lead and proton-lead collisions at $\sqrt{s_{NN}} = 5.02$ TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 79 (2019) 12, 985
  ◇ 55 citations
- Measurements of electroweak Wjj production and constraints on anomalous gauge couplings with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 77 (2017) 7, 474
  ◇ 55 citations
- Combinations of single-top-quark production cross-section measurements and $|f_{LV}V_{tb}|$ determinations at $\sqrt{s} = 7$ and 8 TeV with the ATLAS and CMS experiments
  ◇ Published in: JHEP 05 (2019) 088
  ◇ 55 citations
- Search for long-lived neutral particles produced in pp collisions at $\sqrt{s} = 13$ TeV decaying into displaced hadronic jets in the ATLAS inner detector and muon spectrometer
  ◇ Published in: Phys.Rev.D 101 (2020) 5, 052013
  ◇ 55 citations
- Measurements of integrated and differential cross sections for isolated photon pair production in pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.D 95 (2017) 11, 112005
  ◇ 55 citations
- Search for resonant WZ production in the fully leptonic final state in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 787 (2018) 68-88
  ◇ 54 citations
- Search for long-lived, massive particles in events with a displaced vertex and a muon with large impact parameter in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector

◇ Published in: Phys.Rev.D 102 (2020) 3, 032006
◇ 54 citations

- Search for Magnetic Monopoles and Stable High-Electric-Charge Objects in 13 Tev Proton-Proton Collisions with the ATLAS Detector
  ◇ Published in: Phys.Rev.Lett. 124 (2020) 3, 031802
  ◇ 54 citations
- Identification of boosted Higgs bosons decaying into b-quark pairs with the ATLAS detector at 13 TeV
  ◇ Published in: Eur.Phys.J.C 79 (2019) 10, 836
  ◇ 54 citations
- Search for supersymmetry in final states with charm jets and missing transverse momentum in 13 TeV pp collisions with the ATLAS detector
  ◇ Published in: JHEP 09 (2018) 050
  ◇ 54 citations
- Search for new non-resonant phenomena in high-mass dilepton final states with the ATLAS detector
  ◇ Published in: JHEP 11 (2020) 005, JHEP 04 (2021) 142 (erratum)
  ◇ 54 citations
- Measurement of the cross section for isolated-photon plus jet production in pp collisions at $\sqrt{s} = 13$ TeV using the ATLAS detector
  ◇ Published in: Phys.Lett.B 780 (2018) 578-602
  ◇ 53 citations
- Search for displaced vertices of oppositely charged leptons from decays of long-lived particles in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 801 (2020) 135114
  ◇ 53 citations
- Test of CP invariance in vector-boson fusion production of the Higgs boson in the $H \to \tau\tau$ channel in proton–proton collisions at s=13TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 805 (2020) 135426
  ◇ 53 citations
- Search for pair production of higgsinos in final states with at least three b-tagged jets in $\sqrt{s} = 13$ TeV pp collisions using the ATLAS detector
  ◇ Published in: Phys.Rev.D 98 (2018) 9, 092002
  ◇ 53 citations
- Search for Higgs boson decays into pairs of light (pseudo)scalar particles in the $\gamma\gamma jj$ final state in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 782 (2018) 750-767
  ◇ 52 citations
- Search for new phenomena in events with two opposite-charge leptons, jets and missing transverse momentum in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 04 (2021) 165
  ◇ 52 citations
- Search for new phenomena in final states with b-jets and missing transverse momentum in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector
  ◇ Published in: JHEP 05 (2021) 093
  ◇ 51 citations

- Measurement of the production cross section for a Higgs boson in association with a vector boson in the $H \to WW^* \to \ell\nu\ell\nu$ channel in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 798 (2019) 134949
  ◇ 51 citations
- Measurements of W and Z boson production in pp collisions at $\sqrt{s} = 5.02$ TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 79 (2019) 2, 128, Eur.Phys.J.C 79 (2019) 5, 374 (erratum)
  ◇ 51 citations
- Search for new phenomena with top quark pairs in final states with one lepton, jets, and missing transverse momentum in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 04 (2021) 174
  ◇ 50 citations
- Search for bottom-squark pair production with the ATLAS detector in final states containing Higgs bosons, b-jets and missing transverse momentum
  ◇ Published in: JHEP 12 (2019) 060
  ◇ 50 citations
- Measurement of jet p_T correlations in Pb+Pb and pp collisions at $\sqrt{s_{NN}} = 2.76$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 774 (2017) 379-402
  ◇ 50 citations
- Search for flavor-changing neutral currents in top quark decays $t \to Hc$ and $t \to Hu$ in multilepton final states in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.D 98 (2018) 3, 032002
  ◇ 50 citations
- Search for $t\bar{t}$ resonances in fully hadronic final states in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 10 (2020) 061
  ◇ 50 citations
- Measurement of the CP-violating phase ϕ_s in $B_s^0 \to J/\psi\phi$ decays in ATLAS at 13 TeV
  ◇ Published in: Eur.Phys.J.C 81 (2021) 4, 342
  ◇ 50 citations
- Fluctuations of anisotropic flow in Pb+Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV with the ATLAS detector
  ◇ Published in: JHEP 01 (2020) 051
  ◇ 49 citations
- A strategy for a general search for new phenomena using data-derived signal regions and its application within the ATLAS experiment
  ◇ Published in: Eur.Phys.J.C 79 (2019) 2, 120
  ◇ 49 citations
- Correlated long-range mixed-harmonic fluctuations measured in pp, p+Pb and low-multiplicity Pb+Pb collisions with the ATLAS detector
  ◇ Published in: Phys.Lett.B 789 (2019) 444-471
  ◇ 49 citations
- Measurement of jet fragmentation in 5.02 TeV proton-lead and proton-proton collisions with the ATLAS detector

◇ Published in: Nucl.Phys.A 978 (2018) 65
◇ 48 citations

- Measurement of jet-substructure observables in top quark, W boson and light jet production in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 08 (2019) 033
  ◇ 47 citations
- Measurement of $WW/WZ \to \ell\nu qq'$ production with the hadronically decaying boson reconstructed as one or two jets in pp collisions at $\sqrt{s} = 8$ TeV with ATLAS, and constraints on anomalous gauge couplings
  ◇ Published in: Eur.Phys.J.C 77 (2017) 8, 563
  ◇ 47 citations
- Measurement of the cross-section and charge asymmetry of W bosons produced in proton–proton collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 79 (2019) 9, 760
  ◇ 47 citations
- Search for flavour-changing neutral currents in processes with one top quark and a photon using 81 fb^{-1} of pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS experiment
  ◇ Published in: Phys.Lett.B 800 (2020) 135082
  ◇ 47 citations
- Search for type-III seesaw heavy leptons in dilepton final states in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 81 (2021) 3, 218
  ◇ 47 citations
- Search for heavy charged long-lived particles in proton-proton collisions at $\sqrt{s} =$ 13 TeV using an ionisation measurement with the ATLAS detector
  ◇ Published in: Phys.Lett.B 788 (2019) 96-116
  ◇ 47 citations
- Search for new phenomena with large jet multiplicities and missing transverse momentum using large-radius jets and flavour-tagging at ATLAS in 13 TeV pp collisions
  ◇ Published in: JHEP 12 (2017) 034
  ◇ 47 citations
- Search for large missing transverse momentum in association with one top-quark in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 05 (2019) 041
  ◇ 47 citations
- Search for pair production of scalar leptoquarks decaying into first- or second-generation leptons and top quarks in proton–proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 81 (2021) 4, 313
  ◇ 47 citations
- Evidence for the production of three massive vector bosons with the ATLAS detector
  ◇ Published in: Phys.Lett.B 798 (2019) 134913
  ◇ 46 citations
- Observation of electroweak production of two jets and a Z-boson pair
  ◇ Published in: Nature Phys. 19 (2023) 2, 237-253
  ◇ 46 citations

- Measurements of the production cross-section for a Z boson in association with b-jets in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 07 (2020) 044
  ◇ 46 citations
- Search for dark matter in association with an energetic photon in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 02 (2021) 226
  ◇ 46 citations
- Measurement of the $Z\gamma \to \nu\bar{n}u\gamma$ production cross section in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector and limits on anomalous triple gauge-boson couplings
  ◇ Published in: JHEP 12 (2018) 010
  ◇ 46 citations
- Search for the electroweak diboson production in association with a high-mass dijet system in semileptonic final states in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.D 100 (2019) 3, 032007
  ◇ 46 citations
- Search for resonances decaying into a weak vector boson and a Higgs boson in the fully hadronic final state produced in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.D 102 (2020) 11, 112008
  ◇ 46 citations
- Search for B-L R -parity-violating top squarks in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS experiment
  ◇ Published in: Phys.Rev.D 97 (2018) 3, 032003
  ◇ 45 citations
- Search for lepton-flavor violation in different-flavor, high-mass final states in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.D 98 (2018) 9, 092008
  ◇ 45 citations
- Z boson production in Pb+Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV measured by the ATLAS experiment
  ◇ Published in: Phys.Lett.B 802 (2020) 135262
  ◇ 44 citations
- Study of the hard double-parton scattering contribution to inclusive four-lepton production in pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 790 (2019) 595-614, Phys.Lett. 790 (2019) 595
  ◇ 44 citations
- Measurement of the four-lepton invariant mass spectrum in 13 TeV proton-proton collisions with the ATLAS detector
  ◇ Published in: JHEP 04 (2019) 048
  ◇ 43 citations
- Probing the quantum interference between singly and doubly resonant top-quark production in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.Lett. 121 (2018) 15, 152002
  ◇ 43 citations
- Measurement of $W^{\pm}$ boson production in Pb+Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV with the ATLAS detector

◇ Published in: Eur.Phys.J.C 79 (2019) 11, 935
◇ 43 citations

- Measurement of the cross-section for electroweak production of dijets in association with a Z boson in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 775 (2017) 206-228
  ◇ 43 citations
- Measurement of differential cross-sections of a single top quark produced in association with a W boson at $\sqrt{s} = 13$ TeV with ATLAS
  ◇ Published in: Eur.Phys.J.C 78 (2018) 3, 186
  ◇ 43 citations
- Study of $WW\gamma$ and $WZ\gamma$ production in pp collisions at $\sqrt{s} = 8$ TeV and search for anomalous quartic gauge couplings with the ATLAS experiment
  ◇ Published in: Eur.Phys.J.C 77 (2017) 9, 646
  ◇ 43 citations
- Search for a heavy Higgs boson decaying into a Z boson and another heavy Higgs boson in the $\ell\ell bb$ and ℓ final states in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 81 (2021) 5, 396
  ◇ 42 citations
- Prompt and non-prompt J/ψ elliptic flow in Pb+Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 78 (2018) 9, 784
  ◇ 42 citations
- Combination of the W boson polarization measurements in top quark decays using ATLAS and CMS data at $\sqrt{s} = 8$ TeV
  ◇ Published in: JHEP 08 (2020) 08, 051
  ◇ 42 citations
- Combination of inclusive and differential $t\bar{t}$ charge asymmetry measurements using ATLAS and CMS data at $\sqrt{s} = 7$ and 8 TeV
  ◇ Published in: JHEP 04 (2018) 033
  ◇ 42 citations
- Direct top-quark decay width measurement in the $t\bar{t}$lepton+jets channel at $\sqrt{s} = 8$ TeV with the ATLAS experiment
  ◇ Published in: Eur.Phys.J.C 78 (2018) 2, 129
  ◇ 41 citations
- Observation and Measurement of Forward Proton Scattering in Association with Lepton Pairs Produced via the Photon Fusion Mechanism at ATLAS
  ◇ Published in: Phys.Rev.Lett. 125 (2020) 26, 261801
  ◇ 41 citations
- Measurements of differential cross sections of top quark pair production in association with jets in pp collisions at $\sqrt{s} = 13$ TeV using the ATLAS detector
  ◇ Published in: JHEP 10 (2018) 159
  ◇ 41 citations
- Measurements of the inclusive and differential production cross sections of a top-quark–antiquark pair in association with a Z boson at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 81 (2021) 8, 737, Eur.Phys.J.C 81 (2021) 737
  ◇ 41 citations

- Alignment of the ATLAS Inner Detector in Run-2
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  ◇ 41 citations
- Search for R-parity-violating supersymmetric particles in multi-jet final states produced in $p-p$ collisions at $\sqrt{s}=13$ TeV using the ATLAS detector at the LHC
  ◇ Published in: Phys.Lett.B 785 (2018) 136-158
  ◇ 41 citations
- Search for new phenomena in events containing a same-flavour opposite-sign dilepton pair, jets, and large missing transverse momentum in $\sqrt{s}=13$ pp collisions with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 77 (2017) 3, 144
  ◇ 41 citations
- Search for top squarks decaying to tau sleptons in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.D 98 (2018) 3, 032008
  ◇ 41 citations
- Measurements of top-quark pair single- and double-differential cross-sections in the all-hadronic channel in pp collisions at $\sqrt{s}=13$ TeV using the ATLAS detector
  ◇ Published in: JHEP 01 (2021) 033
  ◇ 40 citations
- Search for heavy resonances decaying to a photon and a hadronically decaying $Z/W/H$ boson in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.D 98 (2018) 3, 032015
  ◇ 40 citations
- Search for Higgs boson decays into two new low-mass spin-0 particles in the $4b$ channel with the ATLAS detector using pp collisions at $\sqrt{s}=13$ TeV
  ◇ Published in: Phys.Rev.D 102 (2020) 11, 112006
  ◇ 40 citations
- Analysis of the Wtb vertex from the measurement of triple-differential angular decay rates of single top quarks produced in the t-channel at $\sqrt{s}=8$ TeV with the ATLAS detector
  ◇ Published in: JHEP 12 (2017) 017
  ◇ 40 citations
- Search for resonances decaying into photon pairs in 139 fb^{-1} of pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 822 (2021) 136651
  ◇ 40 citations
- Optimisation of large-radius jet reconstruction for the ATLAS detector in 13 TeV proton–proton collisions
  ◇ Published in: Eur.Phys.J.C 81 (2021) 4, 334
  ◇ 40 citations
- Search for Displaced Leptons in $\sqrt{s}=13$ TeV pp collisions with the ATLAS Detector
  ◇ Published in: Phys.Rev.Lett. 127 (2021) 5, 051802
  ◇ 39 citations
- Measurement of the azimuthal anisotropy of charged-particle production in $Xe+Xe$ collisions at $\sqrt{s_{NN}}=5.44$ with the ATLAS detector

◇ Published in: Phys.Rev.C 101 (2020) 2, 024906
◇ 39 citations

- Measurements of differential cross-sections in four-lepton events in 13 TeV proton-proton collisions with the ATLAS detector
  ◇ Published in: JHEP 07 (2021) 005
  ◇ 38 citations
- Operation and performance of the ATLAS Tile Calorimeter in Run 1
  ◇ Published in: Eur.Phys.J.C 78 (2018) 12, 987
  ◇ 37 citations
- Search for squarks and gluinos in final states with one isolated lepton, jets, and missing transverse momentum at $\sqrt{s} = 13$ with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 81 (2021) 7, 600, Eur.Phys.J.C 81 (2021) 10, 956 (erratum)
  ◇ 37 citations
- Search for new phenomena using the invariant mass distribution of same-flavour opposite-sign dilepton pairs in events with missing transverse momentum in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector
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  ◇ 37 citations
- Measurement of the suppression and azimuthal anisotropy of muons from heavy-flavor decays in Pb+Pb collisions at $\sqrt{s_{NN}} = 2.76$ TeV with the ATLAS detector
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- Longitudinal Flow Decorrelations in Xe+Xe Collisions at $\sqrt{s_{NN}} = 5.44$ TeV with the ATLAS Detector
  ◇ Published in: Phys.Rev.Lett. 126 (2021) 12, 122301
  ◇ 36 citations
- Measurements of Higgs bosons decaying to bottom quarks from vector boson fusion production with the ATLAS experiment at $\sqrt{s} = 13$ TeV
  ◇ Published in: Eur.Phys.J.C 81 (2021) 6, 537
  ◇ 36 citations
- Measurement of azimuthal anisotropy of muons from charm and bottom hadrons in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
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  ◇ 36 citations
- Differential cross-section measurements for the electroweak production of dijets in association with a Z boson in proton–proton collisions at ATLAS
  ◇ Published in: Eur.Phys.J.C 81 (2021) 2, 163
  ◇ 36 citations
- Search for direct top squark pair production in events with a Higgs or Z boson, and missing transverse momentum in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector
  ◇ Published in: JHEP 08 (2017) 006
  ◇ 35 citations
- Measurements of inclusive and differential cross-sections of combined $t\bar{t}\gamma$ and $tW\gamma$ production in the $e\mu$ channel at 13 TeV with the ATLAS detector
  ◇ Published in: JHEP 09 (2020) 049
  ◇ 35 citations

- Observation of photon-induced W^+W^- production in pp collisions at $\sqrt{s} = 13$ TeV using the ATLAS detector
  ◇ Published in: Phys.Lett.B 816 (2021) 136190
  ◇ 35 citations
- Dijet azimuthal correlations and conditional yields in pp and p+Pb collisions at sNN=5.02TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.C 100 (2019) 3, 034903
  ◇ 35 citations
- Search for supersymmetry in events with four or more charged leptons in 139 fb^{-1} of $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector
  ◇ Published in: JHEP 07 (2021) 167
  ◇ 35 citations
- Measurement of azimuthal anisotropy of muons from charm and bottom hadrons in Pb+Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 807 (2020) 135595
  ◇ 34 citations
- Measurement of the inclusive and fiducial $t\bar{t}$ production cross-sections in the lepton+jets channel in pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 78 (2018) 487
  ◇ 34 citations
- Search for vector-boson resonances decaying to a top quark and bottom quark in the lepton plus jets final state in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 788 (2019) 347-370
  ◇ 34 citations
- Measurement of ZZ production in the $\ell\ell\nu\nu$ final state with the ATLAS detector in pp collisions at $\sqrt{s} = 13$ TeV
  ◇ Published in: JHEP 10 (2019) 127
  ◇ 34 citations
- Search for heavy long-lived multicharged particles in proton-proton collisions at $\sqrt{s} = 13$ TeV using the ATLAS detector
  ◇ Published in: Phys.Rev.D 99 (2019) 5, 052003
  ◇ 34 citations
- Properties of jet fragmentation using charged particles measured with the ATLAS detector in pp collisions at $\sqrt{s} = 13$ TeV
  ◇ Published in: Phys.Rev.D 100 (2019) 5, 052011
  ◇ 34 citations
- Search for dark matter produced in association with a single top quark in $\sqrt{s} =$ 13 TeV pp collisions with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 81 (2021) 860
  ◇ 33 citations
- Measurement of the production cross section of three isolated photons in pp collisions at $\sqrt{s} = 8$ TeV using the ATLAS detector
  ◇ Published in: Phys.Lett.B 781 (2018) 55-76
  ◇ 33 citations
- Search for scalar resonances decaying into $\mu^+\mu^-$ in events with and without b-tagged jets produced in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 07 (2019) 117
  ◇ 33 citations

- Exclusive dimuon production in ultraperipheral Pb+Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV with ATLAS
  ◇ Published in: Phys.Rev.C 104 (2021) 024906
  ◇ 33 citations
- Search for new phenomena in final states with large jet multiplicities and missing transverse momentum using $\sqrt{s} = 13$ TeV proton-proton collisions recorded by ATLAS in Run 2 of the LHC
  ◇ Published in: JHEP 10 (2020) 062
  ◇ 33 citations
- Evidence for electroweak production of two jets in association with a $Z\gamma$ pair in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 803 (2020) 135341
  ◇ 33 citations
- Search for Higgs Boson Decays into a Z Boson and a Light Hadronically Decaying Resonance Using 13 TeV pp collision Data from the ATLAS Detector
  ◇ Published in: Phys.Rev.Lett. 125 (2020) 22, 221802
  ◇ 33 citations
- Measurement of colour flow using jet-pull observables in $t\bar{t}$events with the ATLAS experiment at $\sqrt{s} = 13$ TeV
  ◇ Published in: Eur.Phys.J.C 78 (2018) 10, 847
  ◇ 32 citations
- Reconstruction and identification of boosted di-τ systems in a search for Higgs boson pairs using 13 TeV proton-proton collision data in ATLAS
  ◇ Published in: JHEP 11 (2020) 163
  ◇ 32 citations
- Measurement of dijet azimuthal decorrelations in pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector and determination of the strong coupling
  ◇ Published in: Phys.Rev.D 98 (2018) 9, 092004
  ◇ 32 citations
- Measurement of angular and momentum distributions of charged particles within and around jets in Pb+Pb and pp collisions at $\sqrt{s_{NN}} = 5.02$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.C 100 (2019) 6, 064901, Phys.Rev.C 101 (2020) 5, 059903 (erratum)
  ◇ 32 citations
- Measurement of detector-corrected observables sensitive to the anomalous production of events with jets and large missing transverse momentum in pp collisions at $\sqrt{s} = 13$ TeV using the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 77 (2017) 11, 765
  ◇ 31 citations
- Measurement of the $Z(\to \ell^+\ell^-)\gamma$ production cross-section inpp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 03 (2020) 054
  ◇ 30 citations
- Search for dijet resonances in events with an isolated charged lepton using $\sqrt{s} = 13$ TeV proton-proton collision data collected by the ATLAS detector
  ◇ Published in: JHEP 06 (2020) 151
  ◇ 30 citations
- The ATLAS inner detector trigger performance in pp collisions at 13 TeV during LHC Run 2

◇ Published in: Eur.Phys.J.C 82 (2022) 3, 206, Eur.Phys.J.C 82 (2022) 206
◇ 30 citations

- A search for lepton-flavor-violating decays of the Z boson into a τ-lepton and a light lepton with the ATLAS detector
  ◇ Published in: Phys.Rev.D 98 (2018) 092010
  ◇ 29 citations
- Transverse momentum and process dependent azimuthal anisotropies in $\sqrt{s_{NN}} =$ 8.16 TeV p+Pb collisions with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 80 (2020) 1, 73
  ◇ 28 citations
- Search for dark matter in events with missing transverse momentum and a Higgs boson decaying into two photons in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 10 (2021) 013
  ◇ 28 citations
- Measurements of $W^+W^-+ \geq 1$ jet production cross-sections in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
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  ◇ 28 citations
- Two-particle azimuthal correlations in photonuclear ultraperipheral Pb+Pb collisions at 5.02 TeV with ATLAS
  ◇ Published in: Phys.Rev.C 104 (2021) 1, 014903
  ◇ 27 citations
- Search for direct production of electroweakinos in final states with missing transverse momentum and a Higgs boson decaying into photons in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
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  ◇ 27 citations
- Measurement of prompt photon production in $\sqrt{s_{NN}} = 8.16$ TeV p-Pb collisions with ATLAS
  ◇ Published in: Phys.Lett.B 796 (2019) 230-252
  ◇ 27 citations
- Search for squarks and gluinos in final states with hadronically decaying τ-leptons, jets, and missing transverse momentum using pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.D 99 (2019) 1, 012009
  ◇ 27 citations
- Search for new phenomena in high-mass final states with a photon and a jet from pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 78 (2018) 2, 102
  ◇ 27 citations
- Measurement of the inclusive cross-section for the production of jets in association with a Z boson in proton-proton collisions at 8 TeV using the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 79 (2019) 10, 847
  ◇ 26 citations
- A search for resonances decaying into a Higgs boson and a new particle X in the $XH \to qqbb$ final state with the ATLAS detector
  ◇ Published in: Phys.Lett.B 779 (2018) 24-45
  ◇ 26 citations

- Determination of the parton distribution functions of the proton from ATLAS measurements of differential $W^{\pm}$ and Z boson production in association with jets
  ◇ Published in: JHEP 07 (2021) 223
  ◇ 26 citations
- Measurement of differential cross sections of isolated-photon plus heavy-flavour jet production in pp collisions at $\sqrt{s} = 8$ TeV using the ATLAS detector
  ◇ Published in: Phys.Lett.B 776 (2018) 295-317
  ◇ 26 citations
- Performance of the ATLAS Level-1 topological trigger in Run 2
  ◇ Published in: Eur.Phys.J.C 82 (2022) 1, 7
  ◇ 25 citations
- Modelling radiation damage to pixel sensors in the ATLAS detector
  ◇ Published in: JINST 14 (2019) 06, P06012
  ◇ 25 citations
- Measurement of the ratio of cross sections for inclusive isolated-photon production in pp collisions at $\sqrt{s} = 13$ and 8 TeV with the ATLAS detector
  ◇ Published in: JHEP 04 (2019) 093
  ◇ 25 citations
- Measurement of b-hadron pair production with the ATLAS detector in proton-proton collisions at $\sqrt{s} = 8$ TeV
  ◇ Published in: JHEP 11 (2017) 062
  ◇ 24 citations
- Measurement of the inclusive isolated-photon cross section in pp collisions at $\sqrt{s} = 13$ TeV using 36 fb^{-1} of ATLAS data
  ◇ Published in: JHEP 10 (2019) 203
  ◇ 23 citations
- Evidence for Higgs boson decays to a low-mass dilepton system and a photon in pp collisions at s=13 TeV with the ATLAS detector
  ◇ Published in: Phys.Lett.B 819 (2021) 136412
  ◇ 22 citations
- Search for the Production of a Long-Lived Neutral Particle Decaying within the ATLAS Hadronic Calorimeter in Association with a Z Boson from pp collisions at $\sqrt{s} = 13$ TeV
  ◇ Published in: Phys.Rev.Lett. 122 (2019) 15, 151801
  ◇ 22 citations
- A search for pairs of highly collimated photon-jets in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.D 99 (2019) 1, 012008
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- Configuration and performance of the ATLAS b-jet triggers in Run 2
  ◇ Published in: Eur.Phys.J.C 81 (2021) 12, 1087
  ◇ 21 citations
- Measurement of J/ψ production in association with a $W^{\pm}$ boson with pp data at 8 TeV
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- Search for charged-lepton-flavour violation in Z-boson decays with the ATLAS detector

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◇ 20 citations

- Measurement of the jet mass in high transverse momentum $Z(\to b\bar{b})\gamma$ production at $\sqrt{s} = 13$ TeV using the ATLAS detector
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- Medium-Induced Modification of Z-Tagged Charged Particle Yields in $Pb+Pb$ Collisions at 5.02 TeV with the ATLAS Detector
  ◇ Published in: Phys.Rev.Lett. 126 (2021) 7, 072301
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- Measurement of the k_t splitting scales in $Z \to \ell\ell$ events in pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector
  ◇ Published in: JHEP 08 (2017) 026
  ◇ 19 citations
- Search for Dark Matter Produced in Association with a Dark Higgs Boson Decaying into $W^{\pm}W^{\mp}$ or ZZ in Fully Hadronic Final States from $\sqrt{s} = 13$ TeV pp Collisions Recorded with the ATLAS Detector
  ◇ Published in: Phys.Rev.Lett. 126 (2021) 12, 121802
  ◇ 18 citations
- Properties of $g \to b\bar{b}$ at small opening angles in pp collisions with the ATLAS detector at $\sqrt{s} = 13$ TeV
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  ◇ 18 citations
- Measurement of distributions sensitive to the underlying event in inclusive Z-boson production in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 79 (2019) 8, 666
  ◇ 18 citations
- Measurement of long-range two-particle azimuthal correlations in Z-boson tagged pp collisions at $\sqrt{s} = 8$ and 13 TeV
  ◇ Published in: Eur.Phys.J.C 80 (2020) 1, 64
  ◇ 18 citations
- Constraints on Higgs boson properties using $WW^*(\to \nu\mu\nu)jj$ production in 36.1fb^{-1} of $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 82 (2022) 7, 622
  ◇ 17 citations
- Measurement of hadronic event shapes in high-p_T multijet final states at $\sqrt{s} =$ 13 TeV with the ATLAS detector
  ◇ Published in: JHEP 01 (2021) 188, JHEP 12 (2021) 053 (erratum)
  ◇ 16 citations
- Search for phenomena beyond the Standard Model in events with large b-jet multiplicity using the ATLAS detector at the LHC
  ◇ Published in: Eur.Phys.J.C 81 (2021) 1, 11, Eur.Phys.J.C 81 (2021) 3, 249 (erratum)
  ◇ 16 citations
- Search for top squarks in events with a Higgs or Z boson using 139 fb^{-1} of pp collision data at $\sqrt{s} = 13$ TeV with the ATLAS detector ◇ Published in: Eur.Phys.J.C 80 (2020) 11, 1080
  ◇ 15 citations

- Resolution of the ATLAS muon spectrometer monitored drift tubes in LHC Run 2
  ◇ Published in: JINST 14 (2019) 09, P09011
  ◇ 15 citations
- A search for the decays of stopped long-lived particles at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 07 (2021) 173
  ◇ 15 citations
- Measurement of $W^{\pm}$-boson and Z-boson production cross-sections in pp collisions at $\sqrt{s} = 2.76$ with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 79 (2019) 11, 901
  ◇ 14 citations
- Search for Higgs boson production in association with a high-energy photon via vector-boson fusion with decay into bottom quark pairs at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: JHEP 03 (2021) 268
  ◇ 14 citations
- Measurement of single top-quark production in association with a W boson in the single-lepton channel at $\sqrt{s} = 8$ with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 81 (2021) 8, 720
  ◇ 14 citations
- Measurement of τ polarisation in $Z/\gamma^* \to \tau\tau$ decays in proton–proton collisions at $\sqrt{s} = 8$ TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 78 (2018) 2, 163
  ◇ 13 citations
- Measurement of the relative $B_c^{\pm}/B^{\pm}$ production cross section with the ATLAS detector at $\sqrt{s} = 8$ TeV ◇ Published in: Phys.Rev.D 104 (2021) 1, 012010
  ◇ 13 citations
- Search for trilepton resonances from chargino and neutralino pair production in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector
  ◇ Published in: Phys.Rev.D 103 (2021) 11, 112003
  ◇ 12 citations
- Performance of the ATLAS RPC detector and Level-1 muon barrel trigger at $\sqrt{s} = 13$ TeV
  ◇ Published in: JINST 16 (2021) 07, P07029
  ◇ 12 citations
- Measurement of differential cross sections for single diffractive dissociation in $\sqrt{s} = 8$ TeV pp collisions using the ATLAS ALFA spectrometer
  ◇ Published in: JHEP 02 (2020) 042, JHEP 10 (2020) 182 (erratum)
  ◇ 12 citations
- The ATLAS Fast TracKer system
  ◇ Published in: JINST 16 (2021) P07006
  ◇ 11 citations
- Emulating the impact of additional proton–proton interactions in the ATLAS simulation by presampling sets of inelastic Monte Carlo events
  ◇ Published in: Comput.Softw.Big Sci. 6 (2022) 1, 3
  ◇ 11 citations
- Study of ordered hadron chains with the ATLAS detector
  ◇ Published in: Phys.Rev.D 96 (2017) 9, 092008
  ◇ 11 citations

- Measurement of isolated-photon plus two-jet production in pp collisions at $\sqrt{s} =$ 13 TeV with the ATLAS detector
  ◇ Published in: JHEP 03 (2020) 179
  ◇ 11 citations
- Comparison between simulated and observed LHC beam backgrounds in the ATLAS experiment at $E_{beam} = 4$ TeV
  ◇ Published in: JINST 13 (2018) 12, P12006
  ◇ 10 citations
- Search for bottom-squark pair production in pp collision events at $\sqrt{s} = 13$ TeV with hadronically decaying τ-leptons, b-jets and missing transverse momentum using the ATLAS detector
  ◇ Published in: Phys.Rev.D 104 (2021) 3, 032014
  ◇ 9 citations
- Search for excited electrons singly produced in proton–proton collisions at $\sqrt{s} =$ 13 TeV with the ATLAS experiment at the LHC
  ◇ Published in: Eur.Phys.J.C 79 (2019) 9, 803
  ◇ 9 citations
- Measurements of sensor radiation damage in the ATLAS inner detector using leakage currents
  ◇ Published in: JINST 16 (2021) P08025
  ◇ 8 citations
- Performance of the upgraded PreProcessor of the ATLAS Level-1 Calorimeter Trigger
  ◇ Published in: JINST 15 (2020) 11, P11016
  ◇ 8 citations
- Measurement of $K_s^0 and \Lambda^0$ production in $t\bar{t}$ dileptonic events in pp collisions at $\sqrt{s} = 7$ TeV with the ATLAS detector
  ◇ Published in: Eur.Phys.J.C 79 (2019) 12, 1017
  ◇ 6 citations
- Measurements of jet observables sensitive to b-quark fragmentation in $t\bar{t}$ events at the LHC with the ATLAS detector
  ◇ Published in: Phys.Rev.D 106 (2022) 3, 032008
  ◇ 5 citations
- Two-particle Bose–Einstein correlations in pp collisions at $\sqrt{s} = 13$ TeV measured with the ATLAS detector at the LHC
  ◇ Published in: Eur.Phys.J.C 82 (2022) 7, 608
  ◇ 5 citations
- Search for heavy resonances decaying into a photon and a hadronically decaying Higgs boson in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
  ◇ Published in: Phys.Rev.Lett. 125 (2020) 251802
  ◇ 5 citations
- Evidence for the production of three massive vectorbosons in pp collisions with the ATLAS detector
  ◇ Published in: PoS DIS2019 (2019) 135
  ◇ 1 citation

Academia Sinica: 3 publications
Name on the Publication: **Y.T. Shen (Taiwan, Inst. Phys.)**

- Characterization and Performance of Germanium Detectors with sub-keV Sensitivities for Neutrino and Dark Matter Experiments
  ◇ Published in: Nucl.Instrum.Meth.A 836 (2016) 67-82
  ◇ 85 citations
- Differentiation of Bulk and Surface Events in p-type Point-Contact Germanium Detectors for Light WIMP Searches
  ◇ Published in: Astropart.Phys. 56 (2014) 1-8
  ◇ 48 citations
- Limits on spin-independent couplings of WIMP dark matter with a p-type point-contact germanium detector
  ◇ Published in: Phys.Rev.Lett. 110 (2013) 26, 261301
  ◇ 90 citations

National Taiwan University: 6 publications
Name on the Publication: **Y.-T. Shen (Taiwan, Natl. Taiwan U.)** and **Y.T. Shen (Taiwan, Natl. Taiwan U.)**

- The Physics of the B Factories
  ◇ Published in: Eur.Phys.J.C 74 (2014) 3026
  ◇ 622 citations
- Study of B $\to$ phi phi K Decays
  ◇ Published in: e-Print: 0802.1547 [hep-ex]
  ◇ 6 citations
- Measurement of $D^0 - \bar{D}^0$ Mixing Parameters in $D^0 \to K^0_s \pi^+ \pi^-$ decays
  ◇ Published in: Phys.Rev.Lett. 99 (2007) 131803
  ◇ 232 citations
- Improved measurement of CP-violating parameters in B0 $\to$ rho+ rho- decays
  ◇ Published in: Phys.Rev.D 76 (2007) 011104
  ◇ 71 citations
- Measurement of the absolute branching fraction of the D+-(s) meson
  ◇ Contribution to: ICHEP 2006 conference
  ◇ 10 citations
- Observation of B $\to$ phi phi K Decays
  ◇ Contribution to: ICHEP 2006 conference
  ◇ 2 citations