

List of Presentation and Talks

Oliver Gutsche

December 1, 2025

- O. Gutsche, **Scientific Computing and Scientific Software Infrastructure - High Performance Computing (HPC)**, (2025), Presentation for the [Chicagoland Computational Traineeship in High Energy Particle Physics](#), ([Material](#))
- O. Gutsche, **Scientific Computing and Scientific Software Infrastructure - Particle Physics Overview**, (2025), Presentation for the [Chicagoland Computational Traineeship in High Energy Particle Physics](#), ([Material](#))
- O. Gutsche, **Computing and Software Infrastructure**, (2024), Presentation at the [Fermilab-CERN HCP Summer School 2024](#), ([Material](#))
- O. Gutsche, **HL-LHC Computing**, (2023), Presentation at the [USCMS Undergraduate Summer Internship 2023](#), ([Material](#))
- O. Gutsche, **The U.S. CMS HL-LHC R&D Strategic Plan**, (2023), Parallel Session Talk at the [26th International Conference on Computing in High Energy & Nuclear Physics \(CHEP2023\)](#), ([Material](#))
- O. Gutsche, **Computing**, (2022), Plenary talk given at the DOE/HEP Review of the Energy Frontier Laboratory Research Program, (Material available upon request)
- O. Gutsche, **Computing**, (2022), Lecture given at [17th Hadron Collider Physics Summer School](#), ([Material](#))
- O. Gutsche, **Exabytes and the Large Hadron Collider: the importance of computing excellence for scientific discovery**, (2019), Seminar given at [Dr. Leonard Weisenthal Colloquium Series at Lewis University](#), ([Material](#))
- O. Gutsche, **WLCG Web Proxy Auto Discovery for Dynamically Created Web Proxies**, (2019), Parallel Session Talk at the [24th International Conference on Computing in High Energy & Nuclear Physics \(CHEP2019\)](#), ([Material](#))
- O. Gutsche, **Bringing heterogeneity to the CMS software framework**, (2019), Parallel Session Talk at the [24th International Conference on Computing in High Energy & Nuclear Physics \(CHEP2019\)](#), ([Material](#))
- O. Gutsche, **Highlights from Parallel Session: Software & Computing**, (2019), Plenary Talk at the [2019 US CMS Annual Collaboration Meeting](#), ([Material](#))
- O. Gutsche, **Software & Computing**, (2019), Plenary Talk at the [2019 US CMS Annual Collaboration Meeting](#), ([Material](#))
- O. Gutsche, **CMS Software, Computing and Analysis Tools**, (2019), Plenary Talk at the CMS Data Analysis School 2019 ([CMSDAS 2019](#)), ([Material](#))
- O. Gutsche, **Exploring the Energy Frontier using Amazon Web Services**, (2018), Amazon Booth at [Supercomputing 2018](#) in Dallas, TX, ([Material](#))
- O. Gutsche, **The Future of Large Scale Scientific Computing - Trends in computing hardware**, (2018), [US ATLAS Workshop 2018 Open Day](#) at the University of Pittsburgh, ([Material](#))
- O. Gutsche, **The Future of Large Scale Scientific Computing**, (2018), [Colloquium](#) given at the Physics Department at the University of Massachusetts Amherst, ([Material](#))
- O. Gutsche, **CMS Software, Computing and Analysis Tools**, (2018), Plenary Talk at the CMS Data Analysis School 2018 ([CMSDAS 2018](#)), ([Material](#))
- O. Gutsche, **Data Organisation, Management and Access (DOMA) in High Energy Physics**, (2017), Talk at the Workshop for Data Organisation, Management and Access (DOMA) in Astronomy, Genomics and High Energy Physics ([DOMA2017](#)), ([Material](#))
- O. Gutsche, **The Future of Large Scale Scientific Computing**, (2017), [Colloquium](#) given at the Department of Physics and Astronomy at Texas Tech University, ([Material](#))

- O. Gutsche, **Particle Physics - A world wide journey from recording particles to analysis using big computing**, (2017), Plenary Talk at the Chicago Council on Science & Technology Panel: [Fermilab and the New Frontiers of Physics](#), [\(Material\)](#)
- O. Gutsche, **CMS Analysis and Data Reduction with Apache Spark**, (2017), Parallel Session Talk at the 18th International Workshop on Advanced Computing and Analysis Techniques in Physics Research ([ACAT 2017](#)), [\(Material\)](#)
- O. Gutsche, **50 years Fermilab - Computing Innovations**, (2017), Talk at the Fermilab 50th Anniversary [Symposium](#), [\(Material\)](#)
- O. Gutsche, **Status and Plans of the CMS Big Data Project**, (2017), Talk at the [CERN Database Futures Workshop 2017](#), [\(Material\)](#)
- O. Gutsche, **Data Management, Access and Organisation (DOMA)**, (2017), Summary Talk at the [2nd S2I2 HEP/CS Workshop](#), [\(Material\)](#)
- O. Gutsche, **Data Analytics in Physics Data Reduction**, (2017), Talk at the [CERN openlab Workshop on Machine Learning and Data Analytics 2017](#), [\(Material\)](#)
- O. Gutsche, **Panel Discussion on the S2I2 Conceptualization for HL-LHC**, (2017), Talk at the Openscience Grid All Hands Meeting ([OSG AHM 2017](#)), [\(Material\)](#)
- O. Gutsche, **The Fermilab HEPCloud, or How to add 240 TFlops in an Hour or Two**, (2017), Talk at HEP Software Foundation [Workshop](#), [\(Material\)](#)
- O. Gutsche, **Intel Big Data Project: CMS Physics Data Reduction Use Case**, (2016), Talk at the [CERN openlab Technical Workshop 2016](#), [\(Material\)](#)
- O. Gutsche, **Big Data in HEP: a Comprehensive Use Case Study**, (2016), Parallel Session Talk at 22nd International Conference on Computing in High Energy and Nuclear Physics ([CHEP 2016](#)), [\(Material\)](#)
- O. Gutsche, **Big Data at FNAL**, (2016), Plenary Talk given at the [8th INFIERI Workshop](#), [\(Material\)](#)
- O. Gutsche, **Amazon and the Future of Computing**, (2016), [Ask-A-Scientist](#) Lecture given to the general public at Fermi National Accelerator Laboratory, [\(Material\)](#)
- O. Gutsche, **Exascale and Exabytes: Future directions in HEP software and computing**, (2015), Seminar given at [Center of Research Computing Seminar Series](#) the University of Notre Dame, [\(Material\)](#)
- O. Gutsche, **Exascale and Exabytes - Computing at Fermilab for LHC and Intensity Frontier**, (2015), Seminar given at the University Los Andes in Bogota, Colombia, [\(Material\)](#)
- O. Gutsche, **Future directions in HEP Software and Computing**, (2015), Plenary talk given at the Meeting of the Division of Particles & Fields of the American Physical Society at the University of Michigan ([DPF2015](#)), [\(Material\)](#)
- O. Gutsche, **Diversity in Computing Technologies and Strategies for Dynamic Resource Allocation**, (2015), Plenary talk given at the Conference for Computing in High Energy Physics ([CHEP2015](#)), Okinawa, Japan , [\(Material\)](#)
- O. Gutsche, **CMS Computing Operations: Outlook on LHC Run 2**, (2015), Talk given at the Openscience Grid All Hands Meeting 2015 at Northwestern University ([OSGAHM2015](#)), [\(Material\)](#)
- O. Gutsche, **Computing Facilities and Services**, (2015), Talk given at the [Fermilab Institutional Review 2015](#), [\(Material\)](#)
- O. Gutsche, **Scientific Computing**, (2014), Plenary talk given at the [47th Annual Fermilab Users Meeting](#), [\(Material\)](#)
- O. Gutsche, **CMS computing operations: the year ahead**, (2014), Talk given at the Openscience Grid All Hands Meeting 2014 at SLAC ([OSGAHM2014](#)), [\(Material\)](#)
- O. Gutsche, **Recent Top Pair Asymmetry Measurements at CMS**, (2014), Seminar given at the [Fermilab Joint Experimental-Theoretical Physics Seminar](#), [\(Material\)](#)
- O. Gutsche, **Computing: From Data to Physics**, (2013), [Ask-A-Scientist](#) Lecture given to the general public at Fermi National Accelerator Laboratory, [\(Material\)](#)
- O. Gutsche, **Measurement of top quark properties with CMS**, (2013), Parallel session talk given at the 19th International Symposium on Particles, Strings, and Cosmology ([PASCOS2013](#)), Taipei, Taiwan, [\(Material\)](#)
- O. Gutsche, **CMS: T2 dynamic data placement and plans for T2 disk space handling**, (2013), Plenary talk given at the [2013 WLCG Collaboration Workshop](#) in Copenhagen, Denmark, [\(Material\)](#)

- O. Gutsche, **CMS: Disk/Tape Separation**, (2013), Plenary talk given at the [2013 WLCG Collaboration Workshop](#) in Copenhagen, Denmark, ([Material](#))
- O. Gutsche, **Computing Support Facilities**, (2013), Talk given at the [2013 Fermi National Accelerator Laboratory Annual Science and Technology Review](#), ([Material](#))
- O. Gutsche, **CMS computing operations in LHC run 1**, (2013), Parallel session talk given at the 2013 Conference for Computing in High Energy Physics ([CHEP2013](#)), Amsterdam, The Netherlands, ([Material](#))
- O. Gutsche, **CMS Production Transfer Case Study**, (2013), Talk given at the [2013 Department of Energy ESNet Requirements Review](#), ([Material](#))
- O. Gutsche, **Summary of CMS Operations Procedures**, (2012), Talk given at the [WLCG Collaboration Workshop 2012](#), ([Material](#))
- O. Gutsche, **Summary of Event Processing Track**, (2010), Plenary talk given at the conference for Computing in High Energy and Nuclear Physics 2010 ([CHEP2010](#)) in Taipei (Taiwan), ([Material](#))
- O. Gutsche, **Validation of software releases for CMS**, (2009), Parallel session talk given at the conference for Computing in High Energy and Nuclear Physics 2009 ([CHEP2009](#)) in Prague, Czech Republic, ([Material](#))
- O. Gutsche, **Dilepton Final States Studies at CMS: From the Standard Model to New Physics**, (2009), Talk given at the [LHC and Dark Matter Workshop](#) at the University of Michigan in Ann Arbor, MI, ([Material](#))
- O. Gutsche, **WLCG scale testing during CMS data challenges**, (2007), Parallel session talk given at the conference for Computing in High Energy and Nuclear Physics 2007 ([CHEP2007](#)) in Victoria, Canada, ([Material](#))
- O. Gutsche, **Distributed CMS Analysis on the Open Science Grid**, (2006), Parallel session talk given at the conference for Computing in High Energy and Nuclear Physics 2006 ([CHEP2006](#)) in Mumbai, India, ([Material](#))