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The supplemental document for resume[1]. Below are published data analyses to which I have a notable contribution. Additionally, presentations at large public conferences and a brief guide to the given software repositories.

Publications

Search for a W' boson decaying to a vector-like quark and a top or bottom quark in the all-jets final state (Full Run 2)
The CMS Collaboration, **CMS Physics Analysis Summary (Paper in progress)**, *B2G-20-002*

Identification of heavy, energetic, hadronically decaying particles using machine-learning techniques
The CMS Collaboration, **CMS Paper**; *JINST 06 2020 P06005*

Search for a W' boson decaying to a vector-like quark and a top or bottom quark in the all-jets final state
The CMS Collaboration, **CMS Paper**, *JHEP 03 2019 127*

Search for $W' \to tb$ in the all-hadronic final state at $\sqrt{s}$ = 13 TeV
The CMS Collaboration, **CMS Paper**, *JHEP 08 2017 029*

Search for $W' \to tb$ in proton-proton collisions at $\sqrt{s}$ = 8 TeV
The CMS Collaboration, **CMS Paper**, *JHEP 02 2016 122*

Search for the production of an excited bottom quark decaying to tW in proton-proton collisions at $\sqrt{s}$ = 8 TeV
The CMS Collaboration, **CMS Paper**, *JHEP 01 2016 166*

Search for a heavy resonance decaying to a top quark and a W boson at $\sqrt{s}$ = 13 TeV in the fully hadronic final state
The CMS Collaboration, **CMS Paper (Submitted to JHEP)**, *Hep-Ex:2104.12853*

Search for Physics beyond the Standard Model in Events with Overlapping Photons and Jets
The CMS Collaboration, **CMS Paper**, *Phys. Rev. Lett. 123 241801 2019*

The Phase-2 Upgrade of the CMS Tracker
The CMS Collaboration, **CMS Technical Design Report**, *CDS (Fig 3.23)*

Boosted Top Jet Tagging at CMS
The CMS Collaboration, **CMS Physics Analysis Summary**, *CMS-PAS-JME-13-007*

Search for new physics using the $t\bar{t}$ invariant mass distribution in pp collisions at $\sqrt{s}$ = 8 TeV
The CMS Collaboration, **CMS Paper**, *Phys. Rev. Lett. 111 211804 2013*

[1] LINK

Presentations at Conferences

Search for new resonances coupling to third generation quarks at CMS,
ICHEP, Seoul, KR., July 2018

Studies of the MaPSA-light Module for the CMS Phase II Upgrade,
Trento, Munich, DE., February 2018

Search for New Massive Resonances with Boosted Top Signatures at CMS,
Boost, Zurich, CH., July 2016

Boosted top quarks in physics analyses,
Boost, London, UK., August 2014

Code Examples

https://github.com/knash
Maintained (created and maintained by me)
AnomalyTools (Python, machine learning)
AEAnalyzer(Python, data analysis)
Educational (Python, machine learning)
FirstML (Python, machine learning)
NanoAODskimAna, THBtrees, MuMod_Software, Wprime13TeV (Python, data analysis)
Contributed (forked with relevant contributions)
NanoHRT (Python, data analysis)
cmssw (C++, full scientific framework)

https://gitlab.cern.ch/knash (CMS password protected)
Contributed (forked with relevant contributions)
Ph2_ACF (C++, full scientific framework),
customNano (Python, data analysis)