OLDRICH KEPKA │ RESUME

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❯❯❯ Profile

❯ High-energy experimental physicist with leadership position in ATLAS

❯ Experienced in supervising high performing physics teams

❯ Proven ability to design and conduct innovative measurements

❯ Hands-on experience in data acquisition and detector operation at CERN

❯❯❯ Skills & Competencies

❯ Scientific experimentation and critical thinking

❯ Curiosity, openness and excellent capacity to learn quickly

❯ Strong organisational and management skills

❯ Team player with the ability to sense group dynamics

❯❯❯ Research Experience

2023 - 2021 - 2022	**ATLAS Standard Model Convener**	CERN Scientific Associate Institute of Physics, Prague

❯ Coordinate about 100 analysis teams, communicate individuals' needs while matching demands of the experiment

❯ Ensure that measurements are carried out effectively and at high scientific quality

❯ Wide coverage of physics processes and signatures (soft and perturbative QCD, jets and photons, electroweak and precision W/Z measurements)

2017 - 2021	**Data Acquisition Software Expert for ATLAS Pixel Detector**	CERN Project Associate/User

❯ SW and embedded SW developer (multi-thread programming, ATLAS TDAQ system)

❯ Detector maintenance, control and operation

Key achievements: Upgrade Pixel back-end electronics system-on-chip from bare-metal system to Linux, pioneer automated testing of DAQ system chain in continuous integration

2014 -	**Staff Researcher on ATLAS**	Institute of Physics, Prague

❯ Measure photon-induces processes ($\gamma\gamma \to WW$ observation, $\gamma\gamma \to \ell\ell$ trigger studies)

❯ Several track-based minimum and underlying event measurements at 13 TeV

❯ Investigated benefits of low-pt track reconstruction for photon-induced measurements

❯ Studies of color reconnection modeling impact on top mass in Pythia8

❯ Member of 4 ATLAS review boards (1 chair) and informal reviewer for 3 analyses

Key achievements: Main analyzer and editor of photon-induced WW analysis at 13 TeV, design data-driven background estimate enabling observation, CERN seminar on ATLAS $\gamma\gamma$ induced physics, exceptional authorship for supervised students

2010 - 2014	**Post-doctoral Researcher on ATLAS**	Institute of Physics, Prague

- ❯ Main analyser of ATLAS track-based minimum bias measurements at 0.9/7 TeV
- ❯ Designed and implemented new rapidity gap finding algorithm to ATLAS software for calorimeter based diffractive measurement
- ❯ Substaintialy contributed to WW measurement at 7 TeV
- ❯ Editor of AFP letter of Intent for Phase-I Upgrade, pile-up overlay simulation for $\gamma\gamma VV$ coupling studies
- ❯ Monte-Carlo development - contribution to Herwig++ (photon-induced and hard-diffractive processes)

Key achievements: First diffractive measurement at the LHC, unfolding expert - Bayesian unfolding used for the first time in ATLAS, rapidity gap tool used to improve centrality evaluation in p+Pb collisions

❯❯❯ Education

2006 - 2009	**Doctoral Studies**	CEA, Saclay

- ❯ PhD thesis: QCD and Diffraction in the ATLAS Experiment at the LHC
- ❯ Pioneer study of photon-induced measurements with forward detectors
- ❯ Colaborate with theorists on BFKL production of jets

2000 - 2006	**Master Studies**	Charles University, Prague

- ❯ Master Thesis: QCD Analysis of Multijet Events in $p\bar{p}$ collisions at the Tevatron

❯❯❯ Awards and Scholarships

2012	**Otto Wichterle Award**	Czech Academy of Sciences

- ❯ Given to outstanding young scientists, includes research support

2006	**Cotutelle PhD Scholarship**	French foreign ministery

- ❯ Three year PhD support for excellent foreign students

❯❯❯ Leadership, Supervision & Teaching

- ❯ Head Deputy of Experimental Particle Physics Department , Institute of Physics (since 2021)
- ❯ Reviewer for JHEP, referee for European grants
- ❯ ATLAS Pixel Run Coordinator (2018 deputy, 2021) and DAQ Coordinator (2018-2021), CERN
- ❯ Subgroup convener of Soft-QCD ATLAS group (2012-14, 15 teams)
- ❯ Supervised 3 BSc, 3 MSc, and co-supervised 3 PhD students (since 2013)
- ❯ Lectures on Statistical methods in high energy physics (2014-2017)

❯❯❯ Languge Skills

- ❯ English (full professional proficiency), French (upper-intermediate), German (intermediate), Czech (native language)