

20th Meeting of SFB/TR9

Computational Particle Physics

from 7th until 9th October 2013

in Karlsruhe

Monday, 7th October 2013

9:00 – 9:30	A1: Konstantin Chetyrkin (KIT): <i>Towards QCD running in 5 loops: quark mass anomalous dimension</i>
9:30 – 10:00	A1: Tobias Kasprzik (KIT): <i>Vector-boson pair production to order α^3 accuracy</i>
10:00 – 10:30	A1: Max Zoller (KIT): <i>Vacuum stability in the SM and the three-loop beta-function for the Higgs self-interaction</i>
10:30 – 11:00	Coffee Break
11:00 – 12:00	A2: Matthias Steinhauser (KIT): <i>Parallelisation of computer algebraic program systems</i>
12:00 – 12:30	A2: Takahiro Ueda (KIT): <i>Recent developments in FORM, TFORM and ParFORM</i>
12:30 – 14:00	Lunch Break
14:00 – 14:30	A4: Bartosz Kostrzewa (HU, Berlin): <i>Preliminary results from twisted mass lattice QCD at the physical point</i>
14:30 – 15:00	A4 : Florian Burger (HU, Berlin): <i>Four-Flavour Leading-Order Hadronic Contribution To The Muon Anomalous Magnetic Moment</i>
15:00 – 15:30	A5: Malgorzata Worek (RWTH, Aachen): <i>Complete Nagy-Soper subtraction for next-to-leading order calculations in QCD</i>
15:30 – 16:00	Coffee Break
16:00 – 17:00	B1: Michal Czakon (RWTH, Aachen): <i>Project talk B1</i>
17:00 – 17:30	B1 : Matthew Dowling (DESY, Zeuthen): <i>Top-quark pair production in a running mass scheme</i>
17:30 – 18:00	B1: Mikhail Kalmykov (DESY, Zeuthen): <i>About interrelation between Standard Model vacuum stability and electro-weak contribution to the ratio between pole and running mass of top-quark</i>
18:15 – 19:45	Meeting of the Project Leaders

Tuesday, 8th October 2013

9:00 – 10:30	B3: Johannes Bluemlein / Karl Jansen (DESY; Zeuthen): <i>Project talk B3</i>
10:30 – 11:00	Coffee Break
11:00 – 11:25	B2: Stefano Lottini (DESY, Zeuthen): <i>Approaching continuum and chiral limit for two-flavour QCD</i>
11:25 – 12:00	B2: Thomasz Korzec (HU, Berlin): <i>Large Volume Simulations with openQCD</i>
12:00 – 12:30	PM Peter Marquard: Alexander Kurz (KIT): <i>Heavy-lepton contributions to the anomalous magnetic moment of electron and muon at four loops</i>
12:30 – 14:0	Lunch Break
14:00 – 14:30	B5: Alexander Mueck (RWTH, Aachen): <i>NLO parton-shower matching for electroweak corrections</i>
14:30 – 15:00	B5: Thi Nhung Dao (KIT): <i>Loop-corrected Triple Higgs Boson Couplings in the NMSSM</i>
15:00 – 15:30	B5: Christian Hangst (KIT): <i>Matching Squark Pair Production at NLO with Parton Showers</i>
15:30 – 16:00	Coffee Break
16:00 – 16:25	C4: Benedikt Biedermann (HU, Berlin): <i>Five-jet production at the LHC at next-to-leading order accuracy in QCD</i>
16:25 – 16:50	C4: Oliver Dekkers (RWTH, Aachen) <i>Antenna subtraction at NNLO QCD for $S \rightarrow Q\bar{Q}X$</i>
16:50 – 17:15	C5: Thomas Herman (KIT): <i>NNLO QCD corrections to $B_s \rightarrow \mu^+\mu^-$</i>
17:15 – 17:40	C5: David Kunz (KIT): <i>Two-loop SUSY-EW corrections to α_s and m_{top}</i>
17:40 – 18:05	PM Melnikov: Jonathan Grigo (KIT): <i>NLO corrections to Higgs boson pair production</i>
from 19:00	Workshop Dinner at restaurant "Badisch' Brauhaus"

Wednesday, 9th October 2013

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9:00 – 10:00	Ulrich Husemann (KIT): <i>News from the top</i>
10:00 – 10:25	C1: Paul Moch (TU, Muenchen): <i>Anomalous magnetic moment of the muon in the Randall-Sundrum model with custodial protection</i>
10:25 – 10:45	Coffee Break
10:45 – 11:10	C1: Piotr Korcyl (DESY, Zeuthen): <i>On one-loop corrections to the matching conditions of Lattice HQET including $1/m_b$ terms</i>
11:10 – 11:35	C3: Mario Prausa (KIT): <i>Two-loop static energy in $N=4$-SYM</i>
11:35 – 12:00	C3: Chihaya Anzai (KIT): <i>Three-loop static octet potential</i>
12:00 – 12:25	C3: Charlotte Hellmann (TU, Muenchen): <i>Sommerfeld enhancement and relic abundance of neutralino dark matter - a few examples</i>
12:00	End of the Meeting