

Achievements and Perspectives in Low-Energy QCD with Strangeness

ECT*, Trento
27 – 31 October 2014

Organizers:

Catalina Curceanu
Laura Fabbietti
Carlo Guaraldo
Jiri Mares
Johann Marton
Ulf-G. Meißner

Scientific program

Monday, 27 October:

9:00 – 9.30 Registration

9:30 – 9:50 Welcome and ECT* presentation (Catalina Curceanu and Wolfram Weise)

Chair: Johann Marton

9:50 – 10:25 Friedman E., Hadron-nucleus amplitudes near threshold

10:25 – 11:00 Tomasz Matulewicz, Selected aspects of strangeness production in pion-nucleus interactions at 1.15 GeV/c

11:00 – 11:30 Coffee Break

11:30 – 12:05 Petschauer S., Baryonic forces in SU(3) chiral effective theory

12:05 – 12:40 Hauenstein F., $p\Lambda$ spin triplet scattering length and polarization observables measured in the $\bar{p} + p \rightarrow pK\Lambda$ reaction

12:40 – 13:15 Cieply A., $\bar{K}N$ and related resonances in nuclear matter

13:15 – 14:30 LUNCH

Chair: Eli Friedman

14:30 - 15:05 Hiyama E., Structure of neutron rich hypernuclei

15:05 – 15:40 Gal A., Ann and other neutron-rich hypernuclei

15:40 – 16:10 Coffee break

16:10 – 16:45 Weise W., Some pending issues in low-energy strong interactions with strangeness

16:45 – 17:30 Guaraldo C., Ten years of leadership in Europe of the hadronic Physics community

Evening event: Welcome buffet at ECT* (7 pm)

Tuesday, 28 October

Chair: Catalina Curceanu

9:20 – 9:55 Shevchenko N., Faddeev calculation of kaonic deuterium

9:55 – 10:30 Mai M., Recoil corrections in low-energy antikaon-deuteron scattering

10:30 – 11:00 Coffee break

11:00 – 11:35 Maggiora M., Strangeness production at BESIII

11:35 – 12:10 Piano S., Strangeness production from kaon two-nucleon absorption on light nuclei

12:10 – 12:45 Lagana C., Perspectives on the Lambda-Neutron-Neutron hypernucleus

12:45– 14:30 LUNCH

Chair: Carlo Guaraldo

14:30 – 15:30 ECT* Colloquium: Marton J. Highlights and open problems in low-energy strong interaction with strangeness

15:30 – 16:05 Drago A., High density matter in compact stars

16:05 – 16:30 Coffee break

16:30 – 17:05 Bombaci I., Strangeness in Neutron Stars

17:05 – 17:40 Schmitt A., Dense QCD matter in compact stars

17:40 – 18:15 Sakuma F., Recent results and future prospects of the $\bar{K}NN$ search via the (K^-, N) reaction at J-PARC

Dinner at La Trattoria La Baracca (near ECT*)

Wednesday, 29 October

Chair: Jiri Mares

9:20 – 9:55 Meißner U.-G., Strangeness on the lattice – a challenge

9:55 – 10:30 Sasaki K., Coupled channel approach to hyperon-nucleon interaction from Lattice QCD

10:30 – 11:00 Coffee break

11:00 – 11:35 Munzer R., Is there a kaonic cluster? - Analysis of the reaction $p + p \rightarrow pK\Lambda$ with Partial Waves

11:35 – 12:10 Lalik R., Inclusive hyperon production in p+p collisions

12:10 – 12:45 Silarski M., Study of the proton-hyperon and proton-eta' FSI in the low energy pp collisions

12:45 – 14:30 LUNCH

Chair: Johann Zmeskal

14:30 – 15:05 Fabbietti L., Strangeness production in pion-induced reactions with HADES

15:05 – 16:00 LEANNIS HP3 meeting (chaired by H. Marton)

16:00 – 16:30 *Coffee break*

16:30 – 17:30 LEANNIS HP3 meeting – continued (if necessary) (chaired by H. Marton)

Dinner at Il Circolino restaurant (Trento downtown)

Thursday, 30 October

Chair: Slawomir Wycech

9:20 – 9:55 Lea R., Production of (anti)(hyper)nuclei in Pb-Pb collisions measured with ALICE at the LHC

9:55 – 10:30 Sirghi D., Measurements of kaonic ^4He and ^3He at DAFNE

10:30 – 11:00 *Coffee break*

11:00 – 11:35 Mihaylov D., Hunting for K^{*+} in p+p reactions

11:35 – 12:10 Vazquez Doce O., Strangeness in nuclear medium: experimental studies with the KLOE Drift Chamber

12:10 – 12:45 Piscicchia K., Measurement of the non resonant I=1 transition amplitude lf_{sl} for the $K^- + ^4\text{He} \rightarrow \Lambda + \pi + ^3\text{He}$ process

12:45 – 14:30 LUNCH

Chair: Avraham Gal

14:30 – 15:05 Wycech S., $K^- + ^4\text{He} \rightarrow \Lambda + \pi + ^3\text{He}$ and some consequences

15:05 – 15:40 Filippi A., $\Lambda(1405)$ production in electromagnetic processes at CLAS

15:40 – 16:15 Arnold O., Femtoscopy measurements with different particle species in a p+Nb system

16:15 – 16:45 *Coffee break*

16:45 – 17:20 Hrtankova J., Calculations of antibaryon nuclear bound states

17:20 – 17:55 Zmeskal J., Low-energy reaction with strangeness – future possibilities

Conference Dinner (8 pm)

Friday, 25 October

Chair: Laura Fabbietti

9:30-10:05 Pederiva F., New insights on the hyperon puzzle from Quantum Monte Carlo Calculation

10:05 – 10:40 Gazda D., No core shell model for hypernuclei

10:40 – 11:10 *Coffee break*

11:10 – 11:45 Vesely P., Single- Λ hypernuclei within mean-field and beyond mean-field approach

11:45 – 12:20 Marco Poli L., Developments of an active target GEM-TPC for the AMADEUS experiment

12:20 – 12:40 Closure

LUNCH

Dinner at Pizzeria La Mostra