



**Caucasian-German School and Workshop
on Hadron Physics:**

SPIN IN HADRON PHYSICS

**September 4 – 8, 2006
Tbilisi, Georgia**

Monday, September 4 (10⁰⁰ – 19⁰⁰)

HADRON PHYSICS WITH PROTON AND DEUTERON PROBES

Chairman: Prof. George Khubua (*Rector of Tbilisi State University*)

- 10⁰⁰** **Hildegard Flor** (*German ambassador*): Welcome address
- L1** **Hans Ströher**: Overview of hadron physics program at COSY 25+5'
- T1** **Colin Wilkin**: Priority topics of SPIN program at COSY 25+5'
- T2** **Andro Kacharava**: Recent results from internal experiments at COSY 25+5'
- T3** **Wolfgang Schröder**: Status & Future plans for COSY-TOF experiment 25+5'

12¹⁰ – 12³⁰ Coffee break

Chairman: Prof. Hans Ströher

- T4** **Timo Mersmann**: Investigation of $^3\text{He}\eta$ final state in dp interaction 15+5'
- T5** **Irakli Keshelashvili**: Φ -meson production in pp and pn interactions 15+5'
- T6** **Izabella Zychor**: Hyperon production at ANKE 15+5'

13³⁰ – 15⁰⁰ Lunch break

- T7** **Alexey Dzyuba**: Status of the data analysis on $K^+ K^-$ -pair production 15+5'
- T8** **David Chiladze**: Results on single-polarized measurements at ANKE 15+5'
- T9** **Ralf Engels**: Polarized Internal Target (PIT) for ANKE 15+5'
- T10** **Sergey Dymov**: First results from ANKE cell-target data 15+5'
- T11** **Anatoli Rouba**: Experimental observation of deuteron spin dichroism 15+5'
- T12** **Yuri Kiselev**: Hadron width in nuclear matter 15+5'

17 – 17³⁰ Coffee break

PHYSICS PROJECTS WITH GEORGIAN PARTICIPATION

Chairman: Prof. Mikheil Nioradze

- L2** **Gela Devidze**: Extra dimensions – present status 20+5'
- L3** **Temur Nadareishvili**: Physics of singular potentials 20+5'
- T13** **Tamar Djobava**: HEPI TSU in ATLAS Experiment 20+5'
- T14** **Tamar Chighvinadze**: Polarization measurements in $\text{He}^+ - \text{N}_2$ collisions 10+5'
- 19⁰⁰** **End of Session**

Tuesday, September 5 (9⁰⁰ – 18⁴⁵)

SPIN PHYSICS WITH ANTIPROTONS AND LEPTONS

Chairman: Prof. Erhard Steffens

- | | | |
|------------|--|-------|
| L4 | Mauro Anselmino: Transverse spin structure of the protons | 40+5' |
| T15 | Oleg Shevchenko: Transversity and T-odd PDF's at PAX | 20+5' |
| T16 | Luciano Pappalardo: Transversity measurements at HERMES | 20+5' |
| T17 | Hrachya Marukyan: Deeply virtual compton scattering at HERMES | 20+5' |

11⁰⁰ – 11³⁰ Coffee break

- | | | |
|------------|---|-------|
| T18 | Marco Contalbrigo: PAX project at FAIR | 25+5' |
| T19 | Oleg Ivanov: q_T weighted single spin asymmetries at PAX | 25+5' |
| T20 | Zakaria Merebashvili: Possible ways to extract transversities at PAX | 25+5' |
| T21 | Inti Lehmann: Physics with PANDA at FAIR | 25+5' |

13³⁰ – 15⁰⁰ Lunch break

SPIN FILTERING EXPERIMENTS

Chairman: Prof. Mauro Anselmino

- | | | |
|------------|--|--------|
| T22 | Paolo Lenisa: Spin filtering experiments at COSY and AD | 20+10' |
| T23 | Frank Rathmann: Understanding the FILTEX results | 20+10' |
| T24 | Mirian Tabidze: Simulation results on detector concept | 20+10' |
| T25 | Marco Contalbrigo: Detector concept for spin filtering exp. at COSY | 20+10' |

17⁰⁰ – 17³⁰ Coffee break

LECTURES ON SELECTED TOPICS (I)

- | | | |
|------------------------|---|-------|
| L5 | Jon Chkareuli: Standard model – what might be beyond ? | 35+5' |
| L6 | Vahtang Gogohia: Confinement problem in QCD | 25+5' |
| 18⁴⁵ | End of Session | |

Wednesday, September 6 (9⁰⁰ – 18⁰⁰)

LECTURES ON SELECTED TOPICS (II)

Chairman: Prof. Colin Wilkin

- | | | |
|-----------|--|-------|
| L7 | Erhard Steffens: Storage ring experiments | 35+5' |
| L8 | Sig Martin: Challenges of future storage rings | 35+5' |
| L9 | Christian Wiedner: Development of modern magnet systems | 35+5' |

11⁰⁰ – 11³⁰ Coffee break

ISTC PROJECTS

- | | | |
|------------|--|-------|
| T26 | Maxim Mikirtychiants: Molecular polarization with ABS (ISTC #1861) | 25+5' |
| T27 | Pavel Fedorets: High density pellet targets (ISTC #1966) | 25+5' |
| T28 | David Tananashvili: ISTC #342 and TANDEM projects: status&perspect. | 25+5' |

13⁰⁰ – 15⁰⁰ Lunch break

PAX COLLABORATION MEETING

(separate agenda will be provided)

3h

(15⁰⁰ – 18⁰⁰)

20⁰⁰ Banquet

Thursday, September 7 (10⁰⁰ – 18⁰⁰)

TECHNICAL ISSUES FOR FAIR

Chairman: Prof. Sig Martin

T29	Yuri Shatunov: Polarized antiproton collider at FAIR	20+5'
T30	Dieter Prasuhn: Design study of HESR & CSR at FAIR	20+5'
T31	Archil Garishvili: Lattice studies for COSY and AD rings	20+5'
T32	Alexander Smirnov: Luminosity for PAX project	20+5'
T33	Anatoly Kulikov: Prospects for triggering at PAX	20+5'

12⁰⁵ – 12³⁰ Coffee break

T34	Alexander Nass: Polarized targets for filtering experiments	25+5'
T35	Marco Capiluppi: Measurements of spin-exchange collision cross section	25+5'

13³⁰ – 15⁰⁰ Lunch break

FP7 APPLICATION FOR PAX

Chairman: Prof. Paola Ferretti-Dalpiaz

T36	Frank Rathmann: Tasks for preparation of the FP7 application	20+10'
T37	Anatoly Kulikov: Russian contributions towards the PAX project	20+10'

DISCUSSION 30'

16³⁰ – 17⁰⁰ Coffee break

DISCUSSION 30'

17³⁰ Hans Ströher: Workshop Summary

18⁰⁰ End of Workshop