

**14th INTERNATIONAL CONFERENCE
ON TRANSPORT AND SEDIMENTATION
OF SOLID PARTICLES**

23-27 June, 2008

PRELIMINARY CONFERENCE PROGRAMME

MONDAY - JUNE 23, 2008

- 8.30** - Departure by bus from Azimut Hotel
- 9.00 – 17.30** - Registration of participants. Hall of the rare book
- 12.00 – 14.00** - Excursion on Mining Institute (halls, laboratories, mining museum, church)
- 14.00 – 15.00** - Launch
- 15.00 – 17.00** - Free time
- 18.00** - Departure by bus to Azimut Hotel

TUESDAY - JUNE 24, 2008 - Technical sessions

CONFERENCE HALL

- 9.00** - Departure by bus from Azimut Hotel
- 9.00 – 10.00** - Registration of participants. Hall of the rare book
- 10.00 – 11.00** - Opening ceremony. Co-Chairman – Dean, Professor **Jerzy Sobota**; Chairman - Rector,

Professor **Vladimir Litvinenko**

- 11.00 – 11.15** - **Coffee Break**
11.15-12.00 - **Keynote lecture. H. Kalman:** Threshold Velocities in Particle-Fluid Systems

12.00 – 14.00 – 1st technical session.
Chairman: Allan D. Thomas (Australia)

- 12.00 – 12.20** - **Artur Bartosik:** Influence of Hercchel-Bulkley rheological parameters on prediction of turbulent flow of kaolin slurry.
12.20 – 12.40 - **Anders Sellgren, Kenneth C. Wilson:** Revised method for calculating stratification ratios for heterogeneous flows.
12.40 – 13.00 - **Pavel Vlasak, Zdenek Chara:** Effect of particle size distribution on pressure drops of complex slurry.
13.00 – 13.20 - **Victor I. Alexandrov, Sergei L. Ivanov, Konstantin G. Asatur, Sergei E. Demijanov:** The rheological properties of high concentration slurry at pipeline transportation on example of cooper-nickel ore tailings.
13.20 – 13.40 - **Bohuš Kysela, Zdeněk Chára, Pavel Dítl:** Particle movement in the ultrasound field.
13.40 – 15.00 **Launch**

15.00 – 16.20 – 2nd technical session.
Chairman: Anders Sellgren (Sweden)

- 15.00 – 15.20** - **Arno Talmon:** Boundary layer theory for solid-liquid mixtures tested against coquette flow.
15.20 – 15.40 - **Evgeny Rabinovich, Haim Kalman:** Pickup velocity from heaps of particles.
15.40 – 16.00 - **Allan D. Thomas, Kenneth C. Wilson:** Hybrid rheological model for predicting non-Newtonian turbulent pipe flow.

- 16.00 – 16.20** - **Veruscha Fester, Manoj Chhiba, Reinhardt Kotze, Rainer Haldenwang, Paul Slatter**: Measurements of velocity profiles of slurries in complex geometries.
- 16.20 – 17.00** **Break**

17.00 – 18.15 – 3rd technical session.
Chairman: Pavel Vlasak (Czech Republik)

- 17.00 – 17.15** - **Irina Masalova**: Rheology of explosive emulsions – viscosity, elasticity, time effects, transportation.
- 17.15 – 17.30** - **Lionel Pullum, Andrew Chryss, Lachlan Graham, Paul Slatter**: A technique to obtain the underlying carrier fluid rheology from wide size distribution suspensions using a small pipe viscometer.
- 17.30 – 17.45** - **Dimitri Feys, Geert De Schutter, Ronny Verhoeven**: Fundamental study of the flow of self compacting concrete in pipes under high pressure.
- 17.45 – 18.00** - **Vladimir Havlik, Zdenek Chara, Roman Kaucky, Renata Vesela, Pavel Strasak, Petr Sykora**: Designing and Operation of a Vortex Flow Separator.
- 18.00 – 18.15** - **Mirali Mohammadi**: On the distribution of local friction factor in a V-shaped channel.

18.15 – 20.00 - Welcome Dinner – Cadet Corps Hall

- 20.00** - **Departure by bus in Azimut Hotel**

WEDNESDAY - JUNE 25, 2008 - Technical sessions

CONFERENCE HALL

- 9.00** - **Departure by bus from Azimut Hotel**

9.30 – 10.15 - **Keynote lecture. Cees van Rhee:** Transport and sedimentation in the industry of dredging.

10.15 – 10.30 - **Break**

10.30 – 11.45 – 4th technical session.
Chairman: Ronny Verhoeven (Belgium)

- 10.30 - 10.45** - **Mario Alvarez Grima, Cornelis van den Berg, Teimuraz Gochitashvili, M. Gelenidze:** Analytical wear prediction model for heavy duty centrifugal pumps.
- 10.45 – 11.00** - **Eugeniy Semenenko:** Calculation of pulpation and hydrotransport parameters of polydisperse materials with different density.
- 11.00 – 11.15** - **W. L. Han, J X Xia, X L Zhao:** Pipeline parameters design for slurry of high viscosity and fine particles.
- 11.15 – 11.30** - **Borys Blyuss, Eugeniy Semenenko, Nina Nykyforova:** The calculation procedure of hydrotransport parameters of bulk solid using hydrodynamically active solution.
- 11.30 – 11.45** - **Alexander Nikolaev, Alfredo Coello, Manuel Vega, Manuel Suarez:** Investigation of the parameters of limonite ore hydrotransport system.
- 11.45 – 12.00** **Coffee break**

12.00 – 14.00 – 5th technical session.
Chairman: Włodzimierz Parzonka (Poland)

- 12.00 – 12.20** - **Rafał Dębkowski, Jerzy Sobota, Grzegorz Strozik, Józef Szczap:** Flow of slurry during backfilling of leaching caverns in borehole salt mine.
- 12.20 – 12.40** - **Václav Matoušek:** Prediction of energy loss in slurry pipe at low velocities.
- 12.40 – 13.00** - **Norman T. Cowper, Allan D. Thomas,**

- J. Dippenaar:** The onesteel whyalla 62 km magnetite slurry and return water pipelines.
- 13.00 – 13.20** - **Leon Makharadze, Kakhi Khatiashvili, Archil Sharikadze:** Calculation of means protection of hydrotransport system from sharp increases of pressure.
- 13.20 – 13.40** - **Zdzisław Mysłek, Jan Palarski, Franciszek Plewa, Marcin Popczyk:** Flotation tailings based backfill technology with mobile slurry preparation plant for zinc-lead mine.
- 14.00 – 15.00** - **Launch**

15.00 – 16.40 – 6th technical session.
Chairman: Václav Matoušek (Czech Republic)

- 15.00 – 15.20** - **J. X. Xia, H. T. Ren, N. Han:** Parameters optimization of hydraulic lifting system in commercial deep ocean lifting system.
- 15.20 – 15.40** - **Willibald Kolarčík, Jiří Baklík, Zdeněk Franc, Vladimír Rak:** Industrial applications of hydrohoist in the power industry.
- 15.40 – 16.00** - **Thord Wennberg, Anders Sellgren, Lee Whitlock:** Predicting the performance of centrifugal pumps when handling complex slurries.
- 16.00 – 16.20** - **Dimitri Feys, Geert De Schutter, Ronny Verhoeven:** Evaluation of gravitational flow test with self-compacting concrete.
- 16.20 – 16.40** - **Frits Hofstra, Cees van Rhee, S.A. Miedema, Arno M. Talmon:** On the particle trajectories in dredge pump impellers.
- 16.40 – 17.00** - **Break**

17.00 – 18.40 – 7th technical session.
Chairman: Paul Slatter (South Africa)

- 17.00 – 17.20** - **Vaclav Matousek, Jan Krupicka:** On hydraulic roughness of top of stationary bed in pressurized

- pipes.
- 17.20 – 17.40** - **Dimitri Feys, Geert De Schutter, Ronny Verhoeven**: Influence of thixotropy on the pumping of (self compacting) concrete.
- 17.40 – 18.00** - **Allan .D. Thomas, Norman T. Cowper Snr**: Air release valves (ARV) are conventionally installed on long distance water Pipelines. Why ARVs are not required on slurry pipelines.
- 18.00 – 18.20** - **Grzegorz Strozik, Rafał Jendruś, Marcin Lutyński, Piotr Pierzyna**: Flow and fill properties of fly ash – water slurries for grouting of cavings in underground long wall mining.
- 18.20 – 18.40** - **Lachlan Graham, D. Lester, J. Wu, L. Pullum**: Erosion modelling for slurry flows.

19.00 – 22.00 - Sightseeing excursion of Saint Petersburg

22.00 - Departure by bus in Azimut Hotel

THURSDAY - JUNE 26, 2008 - Technical sessions

CONFERENCE HALL

10.00 - Departure by bus from Azimut Hotel

10.30 – 11.45 – 8th technical session.

Chairman: Teimuraz. Gochitashvili (Georgia)

- 10.30 – 10.45** - **Tomasz Dysarz, Joanna Wicher-Dysarz, Alicja Kasprzak**: Assessment of potential hydrologic regime changes in the Warta river induced by reformance of the Jeziorsko dam.
- 10.45 – 11.00** - **Emil Bournaski, Peter Milanov**: Sediment transport and erosion characteristics of the Mesta river in

Bulgarian territory.

- 11.00 – 11.15** - **Rainer Haldenwang, Paul Slatter, Raj Chhabra**: Open channel flow: the other paradigm.
- 11.15 – 1.30** - **Nikolay Lukerchenko, Siarhei Piatsevich, Zdenek Chara, Pavel Vlasak**: Particle sorting during saltation in channel with transversely tilted bed.
- 11.30 – 11.45** - **Givi Gavardashvili**: New designs of spring-board type drift-trapper and methodology for their calculation.
- 11.45 – 12.00** - **Coffee break**
- 12.00 – 14.00 – 9th technical session.**
Chairman: Emil Bournaski (Bulgaria)
- 12.00 – 12.20** - **Robert Glowsk, Wlodzimierz Parzonkai**: Erosion regime of semi-cohesive island mud from meander in frontier upper.
- 12.20 – 12.40** - **Frédérique Larrarte, Pierre François**: On the influence of suspended solids on ultrasonic beams – application to wastewaters.
- 12.40 – 13.00** - **Marco Vicari, Paolo di Pietro**: An innovative ballasted geocomposite filter for the stabilization of the seabed in the Venice lagoon.
- 13.00 – 13.20** - **Harmut Eckstädt, Jan Kempinski**: Transient flow on non-Newtonian fluids.
- 13.20 – 13.40** - **Frédérique Larrarte, Louis-Marie Cottineau** : Experimental investigation of solids and velocities within sewers.
- 14.00 – 15.00** - **Launch**
- 15.00 – 16.15 – 10th technical session.**
Chairman: Victor Alexandrov (Russia)
- 15.00 – 15.20** - **Marek Dziubiński, Pawel Budzyński**: Generalization of equations for two-phase transportation of gas and non-Newtonian liquid mixtures in pipe.

- 15:20 – 15:40** - **Fedor Zverev, Mikhail Lurie:** Modified material balance method for oil pipelines leak detection.
- 15:40 – 16:00** - **Evgeny Krapivsky, Vladimir. Lomtadze, Alexander Belikov:** The analysis of trunk gas pipelines breakdowns as base for forecasting their technical condition.
- 16:00 – 16:20** - **Alexey Neklyayev:** Emergency gas outlet from gas pipeline.
- 16:20 – 16:40** - **Maria Kuskova:** Peristaltic conduits for uniform and non-uniform media pumping.
- 16:40 – 17:00** - **Break**

17:00 – 18:40 – 11th technical session.
Chairman: Marek Dziubinski (Poland)

- 17:00 – 17:20** - **M. Gareev, V. Kratirov, V. Nadein, M. Nemirov, R. Proskuryakov:** Free Gas Content Measuring in Oil Flows in Pipelines.
- 17:20 – 17:40** - **Anna Volkova:** Improvement of electrometric methods used to identify.
- 17:40 – 18:00** - **Andrey Tertyshniy:** Features of the analysis of the data of diagnostics inside pipelines.
- 18:00 – 18:20** - **M. Svirida:** Application of the magnetic methods of monitoring for an estimation of deflected mode of pipelines.
- 18:20 – 18:40** - **Evgeny Savanko, Alexander Komarov:** Deflected mode of oil and gas pipelines monitoring.
- 18:40 – 19:00** - **Break**
- 19:00 – 19:30** - **Closing Ceremony:** Professor **Jerzy Sobota**; Rector, professor **Vladimir Litvinenko**
- 19:30 – 21:00** - **Farewell Diner - Mining Institute, the third floor**

FRIDAY - JUNE 27, 2008 - Conference Technical Visits

- 9:00 – 9:30** *Registration*

- 10:00 – 14:00 - Technical Visit I - RUDAS Company. The Sea
Commercial Port**
- 14:00 – 15:00 - Launch**
- 15:00 – 17:00 - Technical Visit II. Icebreaker KRASIN**

SATURDAY - JUNE 28, 2008

- 9.00 – 15.00 - Post-Conference Excursion to Peterhof.
Departure by bus from Azimut Hotel.**