

MG-XVI Technical Program

Tuesday, 25

Wednesday, 26

Thursday, 27

Friday, 28

Saturday, 29

|                               |                               |   |  |   |   |
|-------------------------------|-------------------------------|---|--|---|---|
| 15:30 - 20:30<br>Registration | 17:30 - 20:30<br>Get together | Opening   | 8:45 - 9:00  | Opening Ceremony /Director ISSP, H. Mori / G. Chair S. Takayama |   |
|                               |                               | Plenary W1  | 9:00 - 9:30  | Chair<br>Y. H. Matsuda (Japan)                                  | <b>Shojiro Takayama</b> , ISSP, UTokyo, Japan<br>1000 T project of the electro-magnetic flux compression at Kashiwa, Utokyo [ID-35]   |
|                               |                               | Plenary W2  | 9:30 - 10:00   | C. L. Rousculp (USA)  | <b>Sergei Zherlitsyn</b> , Helmholtz-Zentrum Dresden-Rossendorf, Germany<br>Exotic Magnetic States at High Magnetic Fields [ID-19]  |
|                               |                               | Break   | 10:00 - 10:30  |   | Let's enjoy Coffee!   |
|                               |                               | Talk W1   | 10:30 - 10:45  | M. Hagiwara (Japan)   | <b>Oliver Portugal</b> , CNRS-LNCMI, France<br>Megagauss fields for scientific experiments: strategies and routes to improve magnet reliability [ID-93]   |
|                               |                               | Talk W2   | 10:45 - 11:00  |   | <b>Fedor F. Balakirev</b> , Los Alamos National Laboratory, USA<br>Pulsed Magnetic Field Measurement Tools and Techniques for Millisecond and Microsecond Time Domains [ID-55]  |
|                               |                               | Talk W3   | 11:00 - 11:15  |   | <b>Hiroyuki Nojiri</b> , IMR, Tohoku University, Japan<br>Quantum Beam Experiments in Strong Magnetic Fields Generated by a Portable Capacitor Bank [ID-201]  |
|                               |                               | Talk W4   | 11:15 - 11:30  |   | <b>Yuya Kubota</b> , Japan Synchrotron Radiation Research Institute (JASRI), Japan<br>Status and Applications of SACLA [ID-79]  |
|                               |                               | Talk W5   | 11:30 - 11:45  | M. Tokunaga (Japan)   | <b>Stanley Wilson Tozer</b> , National High Magnetic Field Laboratory, USA<br>High pressure, high magnetic field Fermiology studies of YBCO [ID-54]   |
|                               |                               | Talk W6   | 11:45 - 12:00  |   | <b>Takeshi Kondo</b> , ISSP, UTokyo, Japan<br>Observation of Fermi pockets under the coexistence of superconductivity and antiferromagnetism in multi-layered high-Tc cuprates [ID-63]                                    |
|                               |                               | Talk W7   | 12:00 - 12:15  |   | <b>Zhe Wang</b> , Helmholtz Zentrum Dresden Rossendorf, Germany<br>Quantum Criticality of an Ising-like Spin-1/2 Antiferromagnetic Chain in a Transverse Magnetic Field [ID-67]   |
|                               |                               | Break   | 12:15 - 14:00  |   | Let's enjoy Lunch!  |
|                               |                               | Poster  | 14:00 - 15:30  |   | Poster Session (I) Group A  |
|                               |                               | Break   | 15:30 - 16:00  |   | Let's enjoy Coffee!   |
|                               |                               | Invited W1  | 16:00 - 16:25  | K. Kindo (Japan)  | <b>Atsuhiko Miyata</b> , LNCMI-Toulouse, France<br>Megagauss experiments at the LNCMI in Toulouse [ID-104]  |
|                               |                               | Invited W2  | 16:25 - 16:50  |   | <b>Akihiko Ikeda</b> , ISSP, UTokyo, Japan<br>Magnetostriction studies up to megagauss fields using fiber Bragg grating technique [ID-83]   |
|                               |                               | Talk W8   | 16:50 - 17:05  | K. Struve (USA)   | <b>Guanqiong Wang</b> , Institute of Applied Physics and Computational Mathematics, China<br>Numerical Study of the striation formation in the early phases of the cylindrical foil implosions on the PTS facility [ID-7] |
|                               |                               | Talk W9   | 17:05 - 17:20  |   | <b>Zhengwei Zhang</b> , Institute of Fluid Physics, China Academy of Engineering Physics, China<br>Experimental investigation of the mixing of gas-particles on shock loading [ID-53]                                     |
|                               |                               | Talk W10  | 17:20 - 17:35  |   | <b>Yang Zhang</b> , Institute of Applied Physics and Computational Mathematics, China<br>Numerical Study of Magnetically Driven Experiments on PTS and FP-1 Facility [ID-10]  |
|                               |                               | Talk W11  | 17:35 - 17:50  | Qizhi Sun (China)   | <b>Gulin Wang</b> , Key Laboratory of Pulsed Power, Institute of Fluid Physics, CAEP, China<br>Recent advances in hyper-velocity flyer launch and impact experiments on PTS [ID-36]                                       |
| Talk W12                      | 17:50 - 18:05                 | <b>Gennady A Shvetsov</b> , RUSSIAN ACADEMY OF SCIENCES, Russia<br>Effect of Magnetic Fields on the Operation of Shaped Charges [ID-65] |  |   |   |
| Night Out                     | 18:30 - 21:00                 |   | Let's enjoy Night Out (with guide)   |   |   |
|                               |                               | Chair   |  |   |   |
| Plenary T1                    | 9:00 - 9:30                   | H. Nojiri (Japan)   | <b>Marcelo Jaime</b> , Los Alamos National Laboratory, USA<br>Magnetoelastics of AFM domains in UO <sub>2</sub> and a novel electronic nematic state in CoRhIn <sub>2</sub> [ID-47]  |   |   |
| Plenary T2                    | 9:30 - 10:00                  | G. Shvetsov (Russia)  | <b>Liang Li</b> , Wuhan National High Magnetic Field Center, China<br>Pulsed High Magnetic Fields with Flat-top Generated by Capacitor Banks Driven Magnet System and Its Experiments [ID-204]   |   |   |
| Break                         | 10:00 - 10:30                 |   | Let's enjoy Coffee!  |   |   |
| Talk T1                       | 10:30 - 10:45                 | O. Portugal (France)  | <b>Masayuki Hagiwara</b> , Osaka University, Japan<br>High-Field Magnetism of a Spin-2 Quasi-One-Dimensional Heisenberg Antiferromagnet [ID-56]  |   |   |
| Talk T2                       | 10:45 - 11:00                 |   | <b>Toru Sakai</b> , University of Hyogo, Japan<br>Field Induced Spin Nematic Phases of Low Dimensional Magnets [ID-46]   |   |   |
| Talk T3                       | 11:00 - 11:15                 |   | <b>Yuki Izaki</b> , University of Electro-Communications, Japan<br>Anomalous Zeeman effect in strongly spin-orbit coupled system [ID-73]   |   |   |
| Talk T4                       | 11:15 - 11:30                 |   | <b>Shusuke Kasamatsu</b> , ISSP, UTokyo, Japan<br>vdW-DF+U description of solid oxygen in ambient pressure and its magnetic-field induced phase transition [ID-60]   |   |   |
| Talk T5                       | 11:30 - 11:45                 | A. Ivanovsky (Russia)   | <b>Peter John Turchi</b> , Compact Fusion Systems, Inc., USA<br>Review of Controlled Fusion Power at Megagauss Field Levels [ID-41]  |   |   |
| Talk T6                       | 11:45 - 12:00                 |   | <b>Kenneth William Struve</b> , Sandia National Laboratories, USA<br>Estimates of Saturn Radiation Output Scaling versus Machine Design Parameters [ID-61]   |   |   |
| Talk T7                       | 12:00 - 12:15                 |   | <b>Bucur Novac</b> , Loughborough University, UK<br>Unconventional Microwave Source [ID-30]  |   |   |
| Break                         | 12:15 - 14:00                 |   | Let's enjoy Lunch!   |   |   |
| Poster                        | 14:00 - 15:30                 |   | Poster Session (II) Group B  |   |   |
| Break                         | 15:30 - 16:00                 |   | Let's enjoy Coffee!  |   |   |
| Invited T1                    | 16:00 - 16:25                 | J. Goforth (USA)  | <b>Paul Holligan</b> , First Light Fusion, UK<br>An overview of the pulsed power developments at First Light Fusion including the design and construction of Machine 3, a 2.5 MJ low inductance capacitor discharge machine [ID-205]         |   |   |
| Invited T2                    | 16:25 - 16:50                 |   | <b>Gerald F Kluttu</b> , VarTech Services, USA<br>Electric Field and Breakdown Modeling of Helical Explosive Generators [ID-42]  |   |   |
| Talk T8                       | 16:50 - 17:05                 | E. Haroz (USA)  | <b>Andrew Jacob Young</b> , Lawrence Livermore National Laboratory, USA<br>On the Results of an Experiment with a Megajoule Class Helical Flux Compression Generator Operating at Above-Nominal Levels of Current and Voltage Stress [ID-62] |   |   |
| Talk T9                       | 17:05 - 17:20                 |   | <b>Timothy Foley</b> , Los Alamos National Laboratory, USA<br>Coming Back Around Again: The Machined, Helical Flux Compression Generator [ID-64]   |   |   |
| Talk T10                      | 17:20 - 17:35                 |   | <b>Mikhail Alekseevich Shurupov</b> , JIHT RAS, Russia<br>Explosion magnetic generator for power supply of a plasma loads [ID-33]  |   |   |
| Talk T11                      | 17:35 - 17:50                 | S. Garanin (Russia)   | <b>Erik Hector Haroz</b> , Los Alamos National Laboratory, USA<br>Initial Experiments with LANL "Ranchero-S" Flux Compression Generator [ID-37]  |   |   |
| Talk T12                      | 17:50 - 18:05                 |   | <b>Zhuowei Gu</b> , Institute of Fluid Physics, Chinese Academy of Engineering Physics, China<br>Explosive Implosion Magnetic Flux Generator Researching and its Application in Extreme Condition Experiments [ID-11]                        |   |   |
| Party                         | 18:30 - 21:00                 |   | 100th-Birth Celebra. M. Fowler   |   |   |
|                               |                               | Chair   |  |   |   |
| Plenary F1                    | 9:00 - 9:30                   | B.M. Novac (UK)   | <b>Vasily Demidov</b> , Russian Federal Nuclear Center - VNIIEF, Russia<br>Application of Helical Magneto-Cumulative Generators in Physical Experiments [ID-21]  |   |   |
| Plenary F2                    | 9:30 - 10:00                  | Y. Kohama (Japan)   | <b>James Houston Goforth</b> , Los Alamos National Laboratory, USA<br>The Path to 100 MJ Ranchero Experiments [ID-12]  |   |   |
| Break                         | 10:00 - 10:30                 |   | Let's enjoy Coffee!  |   |   |
| Poster                        | 10:30 - 12:15                 |   | Poster Session (III) Group A & B<br>Steering Committee   |   |   |
| Break                         | 12:15 - 14:00                 |   | Let's enjoy Lunch!   |   |   |
| Lab. Tour                     | 14:00 - 17:00                 | Y. Kohama (Japan)   | IMGSL ISSP<br>Lab. Tour and Demo EMFC Explosion Experiment   |   |   |
| Banquet                       | 18:30 - 21:00                 |   | Conference Banquet   |   |   |
|                               |                               | Chair   |  |   |   |
| Plenary S1                    | 9:00 - 9:30                   | R. Reinovsky (USA)  | <b>Wenqing Zou</b> , Key Laboratory of Pulsed Power, Institute of Fluid Physics, China Academy of Engineering Physics, China<br>Progress of High Current Pulse Transmission Based on the 10 MA Primary Test Stand [ID-5]                     |   |   |
| Plenary S2                    | 9:30 - 10:00                  | F. F. Balakirev, (USA)  | <b>A. M. Bugko</b> , Russian Federal Nuclear Center, Russia<br>25th Anniversary of the Joint US-Russian Disk EMG Experiment [ID-40]  |   |   |
| Break                         | 10:00 - 10:30                 |   | Let's enjoy Coffee!  |   |   |
| Talk S1                       | 10:30 - 10:45                 | P. Turchi (USA)   | <b>Robert Emil Reinovsky</b> , Los Alamos National Laboratory, USA<br>USING MAGNETO-HYDRODYNAMIC EXPERIMENTS AND HIGH MAGNETIC FIELDS, TO VALIDATE MODERN CODES THAT SIMULATE EXTREME CONDITIONS [ID-38]                                     |   |   |
| Talk S2                       | 10:45 - 11:00                 |   | <b>Christopher L Rousculp</b> , Los Alamos National Laboratory, USA<br>MHD Modeling of Shock Physics Experiments with the PHELIIX Portable High Magnetic Field Driver [ID-75]  |   |   |
| Talk S3                       | 11:00 - 11:15                 |   | <b>Matthew S. Freeman</b> , Los Alamos National Laboratory, USA<br>Cylindrical Driven Shocks in Ceria [ID-74]  |   |   |
| Talk S4                       | 11:15 - 11:30                 | W. Zou (China)  | <b>Douglas George Tasker</b> , Los Alamos National Laboratory, USA<br>The Effect of Metal Temper on Explosively-Formed Fuse Performance [ID-16]  |   |   |
| Talk S5                       | 11:30 - 11:45                 |   | <b>Zhongyu Zhou</b> , Institute of Fluid Physics, China Academy of Engineering Physics, China<br>A Method for Electrical Conductivity Measurement of Substances under Isentropic Magnetic Compression [ID-13]                                |   |   |
| Talk S6                       | 11:45 - 12:00                 |   | <b>Zhaohui Zhang</b> , Institute of Fluid Physics, China<br>Measurement of Dynamic Materials Properties on PTS [ID-8]  |   |   |
| Closing                       | 12:00 - 12:15                 |   | Closing Ceremony   |   |   |