2-P-296 Mass Formulae for Particles Michi Turu

HE 3.4 -

2-P-297 The AMS-02 Tracker Claudia Cecchi et al.

2-P-298 Nuclearite Search with the TL Stack Detector at Ground Level Tomonori Wada et al.

OG: Oral Sessions

OG: Cosmic Ray Origin and Galactic Phenomena

July 31

14:30–16:30 Convention Hall 300

OG 1.1 -

- 1 Protons with Energy E>70 MeV Trapped in the Earth's Radiation Belts Bruna Bertucci for the AMS-01 Collaboration
- 2 Leptons with E>200 MeV Trapped in the Earth's Radiation Belts Observed with the AMS Experiment Bruna Bertucci for the AMS-01 Collaboration
- 3 Search for Doubly Charged Anomalously Heavy Nuclei with AMS Detector in Space Vitali Choutko for the AMS-01 Collaboration
- 4 Cosmic Ray Flux Measurements Made by MARIE in Mars Orbit Kerry T. Lee et al.
- 5 Extended Energy Spectrum Measurements of Elements with the Cosmic Ray Isotope Spectrometer (CRIS) Allan Wayne Labrador et al.
- 6 New Measurements of the Li, Be, and B Isotopes as a Test of Cosmic Ray Transport Models Georgia A. de Nolfo et al.
- 7 Measurements of the Ultra-Heavy Galactic Cosmic-Ray Abundances between Z=30 and Z=40 with the TIGER Instrument Jason T. Link et al.
- 8 Measurement of the Cosmic-Ray Antiproton Energy Spectrum with HEAT-pbar Simon Swordy et al.
- 9 Measurement of the Deuterium Flux in the Kinetic Energy Range 12-22 GeV/n with the CAPRICE98 Experiment

Elena Vannuccini for the WiZard/CAPRICE Collaboration

10 Cosmic Ray ³He and ⁴He Spectra from BESS 98 Zachary D. Myers and E. S. Seo

August 1

9:10–10:34 Convention Hall 300

OG 1.1 -

- 11 Measurement of High Energy ³He in Cosmic Rays by the CAPRICE98 Balloon Experiment Emiliano Mocchiutti for the WiZard/CAPRICE Collaboration
- 12 Measurement of Electron Spectrum to High Energies with the BESS-1999 Experiment Thomas Hams et al.
- 13 High Energy Cosmic Ray Electron Spectra Measured from the ATIC Balloon Experiment Jin Chang for the ATIC Collaboration

- 14 Cosmic-Ray Proton and Helium Spectra Measured with BESS-TeV Sadakazu Haino for the BESS Collaboration
- 15 Rigidity Spectra of Protons and Helium as Measured in the First Flight of the ATIC Experiment Victor I. Zatsepin et al.
- 16 Atic Experiment: Elemental Spectra from the Flight in 2000 Hoseok Ahn for the ATIC-1 Collaboration
- 17 Primary Proton and Helium Spectra Observed by RUNJOB Collaboration Makoto Hareyama for the RUNJOB Collaboration

14:30–16:30 Convention Hall 300

OG 1.1 -

- 18 The ATIC Science Flight in 2002-03: Description and Preliminary Results John P. Wefel et al.
- 19 Relative Abundances and Energy Spectra of C, N, and O as Measured by the Advanced Thin Ionization Calorimeter Balloon Experiment

 Ali Reza Fazely et al.
- 20 Energy Spectra and Relative Abundances of Heavy Cosmic-Ray Nuclei around 1 TeV/Nucleon Dietrich Muller et al.
- 21 Primary Heavy Components Spectra and 2-ry/1-ry Ratio Observed by RUNJOB Collaboration S. Kuramata for the RUNJOB Collaboration
- 22 The CAKE Balloon Experiment Stefano Cecchini et al.
- 23 All Particle Spectrum, Average Mass from RUNJOB Data L. G. Sveshnikova for the RUNJOB Collaboration

OG 1.5

- 1 Atmospheric Protons and Antiprotons from Sea Level to Satellite Altitudes Laurent Derome et al.
- 2 Calculation of Cosmic-Ray Proton and Anti-Proton Spatial Distribution in Magnetosphere Michio Fuki, A. Kuwahara, and N. Sawada
- 3 BESS-Polar Experiment Tetsuya Yoshida for the BESS Collaboration
- 4 High Energy Electron Observation by Polar Patrol Balloon Flight in Antarctica Shoji Torii et al.

17:30–19:42 Convention Hall 300

OG 1.5 -

- 5 CREAM for High Energy Composition Measurements Eun-Suk Seo et al.
- 6 Design and Construction of the Silicon Charge Detector for the CREAM Mission H. Park et al.
- 7 Status of the PAMELA Experiment On-Board of the Resurs DK-1 Spacecraft Manfred Simon on behalf of the Pamela Collaboration
- 8 PAMELA Space Mission: The Transition Radiation Detector Francesco S. Cafagna et al.
- 9 The Anticounter System of the PAMELA Space Experiment Mark Pearce et al.

10 The Alpha Magnetic Spectrometer on the International Space Station Simonetta Gentile for the AMS-02 Collaboration 11 Cosmic-Ray Astrophysics with AMS-02 Jorge Casaus for the AMS-02 Collaboration 12 The Superconducting Magnet System of the Alpha Magnetic Spectrometer AMS-02 Bertrand Blau et al. 13 The AMS-02 RICH Imager Prototype In-Beam Tests with 20 GeV/c per Nucleon Ions Michel J. Buenerd et al. 14 The AMS-02 TRD for the International Space Station Simonetta Gentile for the AMS 02/TRD Group 15 AMS-02 Electronics Eduardo Cortina for the AMS 02 Collaboration August 2 9:10-10:34 Convention Hall 300 OG 1.5 -16 The CALorimetric Electron Telescope, CALET, Mission for the International Space Station Shoji Torii for the CALET Collaboration 17 Compatibility of CALorimetric Electron Telescope (CALET) for JEM Exposed Facility on International Space Masahiro Takayanagi for the CALET Collaboration 18 Expected Performance of CALET from Simulation Jin Chang for the CALET Collaboration 19 NUCLEON Satellite Mission. Status and Plans George Bashindzhagyan et al. 20 The KLEM-NUCLEON Instrument Detailed Simulation Andrey N. Turundaevsky et al. 21 The Modern Concept of the INCA Project Rauf A. Mukhamedshin for the INCA Collaboration 22 The Russian-US INTREPID Project Rauf A. Mukhamedshin et al. 11:05-12:17 Convention Hall 300 OG 1.5 23 Comparison of a Transition Radiation Detector Response with Numerical Simulations Simon P. Swordy, Patrick Boyle, and Scott Wakely

- 24 Transition Radiation Detectors for Cosmic Rays near the Knee Scott P. Wakely et al.
- 25 RIO: The R-Process Isotope Observer B. A. Weaver and A. J. Westphal

OG 1.2 -

- 1 A Possible Causal Relation of the Source Composition of Cosmic Rays with the Elemental Depletion in the Interstellar Space
 - Kunitomo Sakurai
- 2 Refractory Nuclides in the Cosmic-Ray Source M. E. Wiedenbeck et al.

3 Confidence Levels for Distinguishing Galactic Cosmic-Ray Source Models B. A. Weaver and A. J. Westphal 14:30–16:18 Convention Hall 300 (1/2 parallels) OG 2.4 -1 Spectral Properties of "Classical" GRBs Seen by HETE-2 Satellite Atsumasa Yoshida et al. 2 Timing Properties of GRBs Detected by HETE-2 Motoko Suzuki et al. 3 GRB with INTEGRAL Nicolas Produit 4 Expected Event Rate of Subhundred-GeV Gamma Ray Bursts Using the Tibet-III Air Shower Array with Single Particle Counting Technique Harufumi Tsuchiya for the Tibet ASgamma Collaboration 5 Search for Sub-TeV Gamma Rays Coincident with BATSE Gamma Ray Bursts Christopher P. D'Andrea et al. 6 Search for Neutrinos from Gamma-Ray Bursts Using Super-Kamiokande Dusan Turcan for the Super-Kamiokande Collaboration 7 Searching for High Energy Muon Neutrinos from Gamma-Ray Bursts with AMANDA Gary Hill for the AMANDA Collaboration 8 X-Ray and Gamma Ray Bursts from Collapsing Stars Volodymyr Kryvdyk 9 The Log-Normal Distributions of Coronal Mass Ejection-Related Solar Flares and the Flare/CME Model of Gamma-Ray Bursts Seiichiro Aoki, S. Yashiro, and K. Shibata 14:30-16:18 Conference Room 202 (2/2 parallels) OG 1.3 -1 Propagation of Light Elements in the Galaxy Igor V. Moskalenko et al. 2 Antiprotons in CR: What Do They Tell Us? Igor V. Moskalenko et al. Ray Transport Frank C. Jones et al.

3 Dissipation of Hydromagnetic Waves on Energetic Particles: Impact on Interstellar Turbulence and Cosmic

4 A New Thought on the Energy Dependence of the ¹⁰Be/⁹Be Ratio Manfred Simon and A. Molnar

- 5 Abundance Ratio of Secondary to Primary Expected from the Boundaryless Galaxy Model Makoto Hareyama et al.
- 6 Propagation of Radioactive Secondaries in Cosmic Rays Toru Shibata, T. Ito, and M. Hareyama
- 7 Stable and Radioactive Nuclei in a Diffusion Model Fiorenza Donato, D. Maurin, and R. Taillet
- 8 Calculation of Elemental and Isotopic Abundance of Cosmic Rays Using Markov Stochastic Theory: The Effect of Local Superbubble Ashraf M. Farahat et al.

9 Stochastic Effects on the Electron Spectrum above TeV Energies Simon P. Swordy 17:30–19:18 Convention Hall 300 OG 1.3 -10 The Origin of High Energy Cosmic-Ray Electrons and nearby Supernova Remnants Kenji Yoshida et al. 11 Second-Order Fermi Acceleration in the Interstellar Medium and Its Effects on Cosmic-Ray Electrons Yoshiko Komori OG 1.4 -1 Cosmic Ray Acceleration at Parallel Relativistic Shocks in the Presence of Finite-Amplitude Magnetic Field Perturbations Jacek Niemiec and M. Ostrowski 2 Electron and Proton Acceleration in SNR Paolo Lipari and Giovanni Morlino 3 Cosmic Ray Acceleration by Spiral Shocks in the Galactic Wind Heinrich J. Voelk and V. N. Zirakashvili 4 Nonthermal Electron Acceleration at Supernova Shocks: Relativistic Shock Surfing Mechanism Masahiro Hoshino and N. Shimada 5 Shock Acceleration and Gamma Radiation in Clusters of Galaxies Pasquale Blasi and S. Gabici 6 Particle Acceleration in Clusters of Galaxies Motokazu Takizawa et al. 7 Particle Acceleration and Emission in Relativistic Jets Ken-Ichi Nishikawa et al. August 3 9:10-10:34 Convention Hall 300 OG 2.2 -1 A Wide Sky Survey for TeV γ-Ray Sources by Using the Tibet-III Air Shower Array Shuwang Cui for the Tibet ASgamma Collaboration

- 2 Scans of the TeV Gamma-Ray Sky with the HEGRA System of Cherenkov Telescopes Gerd Puehlhofer for the HEGRA Collaboration
- 3 Observation of Galactic TeV Gamma Ray Sources with H.E.S.S. Conor P. Masterson for the H.E.S.S. Collaboration
- 4 Search for Discrete Sources of Gamma-Rays (E≥30 TeV) with the GRAPES-3 Experiment Dhirendra K. Mohanty for the GRAPES Collaboration
- 5 EGRET Observations of Galactic Relativistic Jet Sources Olaf Reimer and A. Iyudin
- 6 The New Unidentified TeV Source in Cygnus (TeV J2032+4130): HEGRA IACT-System Results Gavin Peter Rowell for the HEGRA Collaboration
- 7 Can One See Gamma Rays from the Single Source Responsible for the Knee? Anatoly D. Erlykin and A. W. Wolfendale

OG 2.2 -

- 8 Can Gamma Ray Astronomy Disprove the Hypothesis That Cosmic Rays Originate in Supernova Remnants? Arnold W. Wolfendale and A. D. Erlykin
- 9 Observed and Expected TeV Gamma-Ray Emission from Geminga and Tycho's Supernova Remnants Vera Yurievna Sinitsyna et al.
- 10 A Search for Pulsed TeV Gamma-Ray Emission from the Crab Pulsar Using the Whipple High Resolution GRANITE III Camera

Stephen Gammell for the VERITAS Collaboration

- 11 An Understanding of the Non-Thermal Radiation from the Crab Nebula S. Alfred Stephens and R. E. Streitmatter
- 12 Evidence of a Curved Cosmic-Ray Electron Spectrum in the Supernova Remnant SN 1006 Glenn E. Allen, J. C. Houck, and S. J. Sturner
- 13 TeV Gamma-Ray Observations of the Supernova Remnant RCW86 with the CANGAROO-II Telescope Shio Watanabe for the CANGAROO Collaboration
- 14 Observation of Sub-TeV Gamma-Rays from RX J0852.0– 4622 with the CANGAROO-II Telescope Hideaki Katagiri for the CANGAROO Collaboration
- 15 Magnetic Field Configurations in SN 1006 NE Rim Ryo Yamazaki et al.
- 16 Nuclear Cosmic Rays from Supernova Remnants Evgeny G. Berezhko et al.
- 17 Evidence for Efficient Cosmic Ray Acceleration in SN 1006 Heinrich J. Voelk, E. G. Berezhko, and L. T. Ksenofontov

17:30–18:42 Convention Hall 300

OG 2.2 -

- 18 Gamma-Rays from the Close Massive Binary Cyg X-3 Agnieszka Sierpowska and W. Bednarek
- 19 The TeV Gamma-Ray Emission Mechanism of PSR 1706–44 Based on the Multi-Wavelength Spectrum Junko Kushida for the CANGAROO Collaboration
- 20 PACT Results on Very High Energy γ -Ray Emission from CRAB Pulsar Bannanje Sripathi Acharya et al.
- 21 Neutrons, Gamma-Rays and Neutrinos from the Galactic Centre Wlodek Bednarek
- 22 Very High Energy Gamma-Ray Observations of the Galactic Center with the CANGAROO-II Telescope Ken'ichi Tsuchiya for the CANGAROO Collaboration
- 23 Search for a WIMP Annihilation Signature in the Core of the Globular Cluster M15 Stephan L. LeBohec for the VERITAS Collaboration

August 5

9:10–10:34 Convention Hall 300

OG 2.5 -

- 1 Performance of Newly Developed Hard X-Ray Polarimeter with Multianode PMT Shuichi Gunji et al.
- 2 The INTEGRAL Mission Nicolas Produit

3 Scientific Performance of the CALET Instrument for the 20MeV-10TeV Gamma-Ray Observation Kenji Yoshida for the CALET Collaboration 4 Optimized Pointing Strategies for Solar Tower ACTs Richard Allen Scalzo et al. 5 The VERITAS Prototype Scott P. Wakely for the VERITAS Collaboration 6 Status of CANGAROO-III Ryoji Enomoto et al. 7 Status of the H.E.S.S. Project Werner Hofmann for the H.E.S.S. Collaboration 14:30–16:30 Convention Hall 300 (1/2 parallels) OG 2.5 -8 Status of the MAGIC Telescope Manel Martinez for the MAGIC Collaboration 9 Performance of the VERITAS-4 Array S. J. Fegan, J. Hall, and V. V. Vassiliev 10 Performance of the H.E.S.S. Cameras Pascal Vincent et al. 11 Calibration Results for the First Two H·E·S·S· Array Telescopes Nicolas Leroy et al. 12 Application of an Analysis Method Based on a Semi-Analytical Shower Model to the First H·E·S·S· Telescope Mathieu de Naurois for the H.E.S.S. Collaboration 13 Extending the Cherenkov Technique Down to an Energy Threshold of a Few GeV: The Ultimate Instrument for Ground-Based Gamma-Ray Astronomy Martin Merck et al. 14 High Energy Astrophysics by ASHRA Naoshi Sugiyama et al. 15 High Altitude Gamma Ray Observatory at Hanle Bannanje Sripathi Acharya et al. 16 A New Project to Detect GRBs with E > 30 GeV at Mt. Chacaltaya Fumio Kakimoto for the BASJE Collaboration 17 Expected Sensitivity of ARGO-YBJ to Detect Point Gamma-Ray Sources Silvia Vernetto for the ARGO-YBJ Collaboration 14:30–16:06 Conference Room 202 (2/2 parallels) OG 3.2 -1 New Suggested Strategy for Detecting Gravitational Waves Maher Melek 2 Coincident Event Search Using TAMA300 and LISM Data Hirotaka Takahashi for the TAMA Collaboration 3 Search for Gravitational Waves from Ringing-Down Black Holes Yoshiki Tsunesada for the TAMA Collaboration 4 Progresses of Search for Gravitational Wave Events Using TAMA300 Data Nobuyuki Kanda for the TAMA Collaboration

5 Current Status of TAMA300 Online Search for Inspiraling Binaries

Daisuke Tatsumi and Y. Tsunesada

6 Search for Burst Gravitational Waves Using TAMA300 Data Masaki Ando for the TAMA Collaboration

OG 3.5

- 1 Search for Correlations between GW Detectors and the LVD Neutrino Telescope Walter Fulgione for the LVD Collaboration
- 2 Geophisical Applications of Laser Interferometers: Long-Term Monitoring Crustal Deformations Vadim C. Milyukov et al.

August 6

9:10–10:34 Convention Hall 300

OG 2.1 -

- 1 Preliminary Evidence for TeV Gamma Ray Emission from the Galactic Plane Using the Milagro Detector Gus Sinnis for the Milagro Collaboration
- 2 Upper Limit on the Diffuse Gamma Ray Flux Using Air Shower Observations at Ooty Yoshio Hayashi for the GRAPES Collaboration
- 3 MHD Simulations of Magnetic Reconnection in the Galaxy: The Origin of Diffuse X-Ray Gas and High Energy Particles

Syuniti Tanuma and K. Shibata

- 4 Diffuse Gamma Rays from the Galactic Plane in the TeV Region Nobuhito Tateyama and J. Nishimura
- 5 Galactic Gamma-Ray Halo of the nearby Starburst Galaxy NGC 253 Tatsuo Yoshida et al.
- 6 Search for Extremely High Energy Gamma Rays with the KASCADE Experiment Gerd Schatz for the KASCADE Collaboration
- 7 Diffused Gamma-Rays and the Cosmic-Ray Propagation Toru Shibata et al.

14:00–16:00 Convention Hall 300 (1/2 parallels)

OG 2.3 ·

- 1 Observations of 54 Active Galactic Nuclei with the HEGRA Cherenkov Telescopes Martin Tluczykont for the HEGRA Collaboration
- 2 Observations of Active Galactic Nuclei by the Solar Tower Atmospheric Cherenkov Effect Experiment (STACEE)

Corbin E. Covault et al.

- 3 Highlights from 6 Years of TeV Gamma-Ray Astrophysics with the HEGRA Imaging Cherenkov Telescopes Goetz Heinzelmann for the HEGRA Collaboration
- 4 Whipple Telescope Observations of Potential TeV Gamma-Ray Sources Found by the Tibet Air Shower Array

Gary P. Walker for the VERITAS Collaboration

5 First Results from Southern Hemisphere AGN Observations Obtained with the H·E·S·S· VHE Gamma-Ray Telescopes

Arache Djannati-Atai for the H.E.S.S. Collaboration

- 6 Monitoring the Northern Sky for Sources of TeV Gamma Rays Gus Sinnis for the Milagro Collaboration
- 7 Intensive TeV Gamma-Ray and X-Ray Observations of the Blazar Mrk 421 in December 2002 and January 2003

Paul Francis Rebillot for the VERITAS Collaboration

- 8 CELESTE Observations of the Crab Nebula and Mkn 421 in 1999-2000 and 2000-2001 Eric Nuss for the CELESTE Collaboration
- 9 Modeling the IR De-Absorbed γ -Ray Spectra of TeV BL Lacs Alexander K. Konopelko et al.
- 10 Study of the VHE Gamma Ray Emission from the AGN 1ES1959+650 with the HEGRA Cherenkov Telescope CT1

Nadia Tonello for the HEGRA Collaboration

14:00–16:00 Conference Room 202 (2/2 parallels)

OG 3.3 -

- 1 CLIO Cryogenic Laser Interferometer Observatory Shinji Miyoki et al.
- 2 LIGO Detectors and Data Analyses: Current Status and Future Prospects Erik Katsavounidis for the LIGO Science Collaboration
- 3 Report on the Observation Run of TAMA300 in the Spring of 2003 Koji Arai for the TAMA Collaboration
- 4 New AURIGA Cryogenic Suspension System
 Michele Giovanni Battista Bignotto for the Auriga Collaboration
- 5 Current Status of TAMA300 Shuichi Sato for the TAMA Collaboration
- 6 Gravitational Wave Detection by Laser Interferometry on Earth Albrecht Ruediger

OG 3.4 -

- 1 Mechanical Loss of Reflective Coating at Low Temperature Kazuhiro Yamamoto et al.
- 2 Direct Measurement of Scattered Light Effect on the Sensitivity in TAMA300 Ryutaro Takahashi et al.
- 3 Dual Detector of Gravitational Waves Livia Conti et al.
- 4 Development of a Small Vibration Cryocooler for CLIO Takayuki Tomaru et al.

17:00–19:12 Convention Hall 300

OG 2.3 -

- 11 Whipple Observations of 1ES1959+650: An Update Jamie Holder
- 12 The Giant Radio Galaxy M 87 as a TeV γ -Ray Emitter Observed with the HEGRA Cherenkov Telescopes Niels Goetting for the HEGRA Collaboration
- 13 Observation of M87 with the Whipple 10m Telescope Stephan L. LeBohec for the VERITAS Collaboration
- 14 Observations of Starburst Galaxies Tomoyuki Nagai for the VERITAS Collaboration
- 15 Observations of H1426+428 from 1999 to 2002 with the Whipple Observatory 10 m Telescope Deirdre Horan for the VERITAS Collaboration
- 16 High Energy Emission from H1426+428 and Absorption on the Extragalactic Background Light Dieter Horns for the HEGRA Collaboration

17 Intrinsic Spectra of the TeV Blazars Mrk 421 and Mrk 501 Frank Krennrich and Eli Dwek 18 Absorption of GeV and TeV γ-Rays in M87 and 3C 273 Alina C. Donea 19 Search for TeV Annihilation Radiation from Supersymmetric Dark Matter in nearby Galaxies Vladimir V. Vassiliev 20 Modeling Particle Acceleration in AGN's Paolo Lipari and Giovanni Morlino 21 M87 as a Misaligned Synchrotron-Proton Blazar Anita Reimer, R. J. Protheroe, and A.-C. Donea **OG: POSTER Session 1** Authors in attendance: July 31, August 1, August 2 16:30–17:30 Multi-Purpose Hall OG 1.1 -1-P-067 Observation of Atmospheric Antiproton with BESS Kazuhiro Yamato for the BESS Collaboration 1-P-068 Detecting ³H with the BESS Spectrometer Zachary D. Myers and E. S. Seo 1-P-069 Search for Cosmic-Ray Antideuteron with the BESS Spectrometer Hideyuki Fuke for the BESS Collaboration 1-P-070 Observations of Primary Electrons with an Emulsion Chamber by Automatic Scanning Method Yoshihiro Sato et al. 1-P-071 The Proton Spectrum in the 0.1-100 TeV Energy Range Obtained from Direct Measurements of the All-Particle Spectrum Ekaterina D. Tolstaya and N. L. Grigorov 1-P-072 The Origin of Galactic Cosmic Ray Protons Ekaterina D. Tolstaya and N. L. Grigorov 1-P-073 Atic Experiment: Preliminary Results from the Flight in 2002 Hoseok Ahn for the ATIC-2 Collaboration 1-P-074 Experience of Application of Silicon Matrix as a Charge Detector in the ATIC Experiment Victor I. Zatsepin et al. 1-P-075 Comparison of Measured and Simulated Albedo Signals in the ATIC Experiment Victor I. Zatsepin et al. 1-P-076 Heavy Primary Spectrum Obtained by "Jet Trigger" Method Masakatsu Ichimura for the RUNJOB Collaboration 1-P-077 The GCR All-Particle Spectrum in the 0.1-100 TeV Energy Range Ekaterina D. Tolstaya and N. L. Grigorov OG 1.2 -1-P-078 Acceleration of the Cosmic Rays by Stellar Collapse Volodymyr Kryvdyk 1-P-079 Search for an Evidence of Fermi Acceleration for SNR in a Time Dependence of Metal Abundance Satoko Osone

1-P-080 GALPROP: New Developments in CR Propagation Code

Frank C. Jones et al.

OG 1.3 -