Tuesday, July 24, 2018
POSTER SESSION I: IMPACT CRATERING PROCESSES AND DYNAMICS OF SMALL BODIES
5:30 p.m. Foyer

Kuzmicheva M. Yu.
Features of Crater Magnetic Anomalies: View from Numerical Modeling **[#6200]**
Three-dimensional magnetostatic calculations of crustal magnetic field have been performed. After-impact magnetic anomalies associated with a magnetic cavity, with a melt sheet and a suevite deposit have been simulated.

Martellato E. Wünnemann K.
Numerical Investigation of Complex Crater Collapse **[#6193]**
We present the results of numerical simulations with iSALE code, where we tested the effect of AF parameters on crater morphometry over a broad range of sizes of complex craters. We derived a relationship between final and transient crater diameters.

Kenkmann T. Rae A. S. P. Cavosie A. J. Cox M. A. Timms N. Miljkovic K.
The Central Uplift of Gosses Bluff, Northern Territory, Australia **[#6077]**
Gosses Bluff impact structure has one of the best exposed central uplifts of all craters on Earth. We present first results of new structural and lithological mapping of this uplift. The impact direction can be easily derived from its structure.

Sundell K. A. Poelchau M. H. Cook D. Kenkmann T.
The Douglas Crater Field, Wyoming, USA: Discovery of an Unexpected Crater Cluster at the Carboniferous-Permian Boundary **[#6149]**
With an age of 280 Ma the newly discovered Douglas crater field is the oldest and probably one of the largest strewn fields on Earth. The elliptical outline of some craters indicates a shallow impact angle and a limited deceleration.

Wulf G. Kenkmann T.
Barringer Impact Crater, AZ, USA: A Terrestrial Rampart Crater? **[#6284]**
Here we present preliminary results showing the interpolation and reconstruction of the morphology of the ejecta blanket of Barringer crater. The results show that the crater shows a weakly pronounced eroded remnant of a small ejecta rampart.

Buchner E. Schmieder M.
The "Breccia Towers" at the Santa Fe Impact Structure, New Mexico, USA — Primary Impact/Tectonic Breccia Versus Colluvial/Alluvial Deposits? **[#6054]**
The "breccia towers" at the Santa Fe Impact site were interpreted as primary impact or tectonic colluvial breccias. Due to characteristic sedimentological features, we interprete these deposits as the erosional remnants of colluvial–alluvial fans.

El Kerni H. Chennaoui Aoudjehane H. Charrière A. Baratoux D. Ibouh H. Aoudjehane M.
Stratigraphy and Chronology of Geological Events in the Agoudal Impact Structure Area (Imilchil District-Morocco) and Further Evidence of Crater Size Based on New Structural Mapping **[#6229]**
Critical information are obtained from the first detailed geological map of the Agoudal impacted site. It documents the distribution of impact features, thus its size, and shows the chronology of the geological events that took place in this area.

Sahoui R. Belhai D.
Ouarkziz Structure (Algeria): Tandem-X(Tdx) Images, Field Investigations and Formation Mechanism **[#6038]**
Ouarkziz structure is a complex impact crater of 3500 m diameter affecting different target rocks bedding at 20° south. It has an outer peripherical ring and a central pick severely eroded.

Belhai D. Sahoui R.
Structural, Geomorphological and Age-Related Analysis of the Amguid Crater **[#6216]**
The Amguid crater (North Hoggar, Algeria) is simple type, 550 m wide and 65 m deep. The structural and geomorphological markers confirm its meteoritic origin and discuss the age of its formation which oscillates between 22,000 and 220,000 years.

De Marchi L. Ormo J. King D. T. Jr. Adrian D. R.
Marine Resurge Sequences and Other Crater Modification-Related Processes at Flynn Creek Impact Structure, Tennessee **[#6278]**
Flynn Creek infilling sediments and interpreted processes based on data from line-logging and petrographic studies of drill cores FC67-3 and FC77-3, located in the crater moat on opposite sides of central uplift area.

Yin F. Liao Z.
Reconnaissance Survey of a Possible Meteorite Impact Crater in Central Tibet **[#6107]**
A possible impact crater has been discovered in central Tibet by satellite image. We took a field trip to identify it is not a meteorite impact crater, but it is a kettle hole.

Déhais T. de Graaff S. J. Kaskes P. Goderis S. Claeys P.
Comparative Petrographic, Geochemical, and Isotopic Characterization of Distal Ejecta Layers **[#6158]**
This work aims to provide better constraints on distal ejecta formation — produced by hyper-velocity large impact events — through time and to confirm or disprove the links between specific spherule layers and with particular impact structures.

Losiak A. Jõeleht A. Plado J. Szyszka M. Wild E. M. Steier P.
Dating Small Impact Craters on Earth and the "Old Wood Problem" **[#6219]**
We determine the best approach towards analysis of the ^{14}C data of the charcoal found within proximal ejecta of small impact craters, based on comparison of ^{14}C ages obtained from two different structures of the Kaali strewn field.

Starunov V. A. Kosterov A. Kharitonskii P. V. Sergienko E. S. Yanson S. Yu.
Magnetic Properties of Impact Melts from the Zhamanshin Crater, Kazakhstan **[#6114]**
Zhamanshinites (impact melts) form a continuous range in terms of the grain size of their ferrimagnetic fraction, from superparamagnetic to several-μm grains. This is apparently controlled by an initial temperature and cooling rate of the melt.

Mohr-Westheide T. Greshake A. Salge T. Palasse L. Wollschläger N. Wirth R. Reimold W. U.
TEM, HR FE-SEM/EDX and TKD Analysis of Platinum Group Element-Rich Micronuggets in Barberton Spherule Layer Samples **[#6161]**
We report results of a TEM study of six sub-μm platinum group-mineral (PGM) phases, a FE-SEM/EDX study of additional eight PGMs and first results of a noval approach by transmission Kikuchi diffraction (TKD) analysis tested on four PGMs.

Oliviera G. J. G. Tagle R. Mohr-Westheide T. Crósta A. P. Reimold W. U. Hauser N. Hoehnel D. Galante D.
Petrographic and Micro-XRF Analysis of Archean Impact-Derived Spherule Layer in Drill Cores from Fairview Mine, Northern Barberton Greenstone Belt (South Africa) **[#6205]**
Recently, four mineral exploration drill cores with Archean spherule-rich layers intersections from Fairview Gold Mine were made available for research. This offers a new opportunity to gain insight into meteorite bombardment of the early Earth.

Marjanac T. Čalogović M. Fazinić S. Marjanac Lj.
Glass Spherules in Middle Pleistocene Glaciogenic Sediments of W. Croatia, Their Composition and Possible Origin **[#6195]**
Sub-millimeter glass spherules from Middle Pleistocene glaciogenic sediments found at three localities in coastal Dinaric Mts., Croatia, are SiO_2 rich and interpreted as distal ejecta of an impact into sedimentary target.