ICNEM '19 - Kraków, Poland

The 2019 International Conference on Nonlinear Elasticity in Materials was held in Kraków, Poland, June 24-28, 2019. The conference
The local host was Lukasz Pieczonka.

The purpose of the yearly International Conference on Nonlinear Elasticity in Materials (ICNEM) is to promote understanding regarding the elastic
primary manifestations of the behavior are characteristic wave distortion, and slow dynamics, a recovery process to equilibrium that takes place li
hours to days after a wave disturbance. The link between the diverse materials that exhibit nonequilibrium dynamics appears to be the presence o
'damage' at many scales, ranging from order 10^-9 m to 10^-1 m at least. The regions of soft matter may be distributed as in a rock sample, or isol

The precise physical origin of the behavior is clear in some cases such as granular media where the source of the nonequilibrium dynamics, grain-to
other materials, it appears that the origin must be due fundamentally to shear sliding, related to crack and possibly dislocation dynamics, as well a

origins of the behavior are related to damage, damage diagnostics in solids, nonlinear destructive evaluation follows naturally. Nonequilibrium dyn
other areas such as earthquake strong ground motion and potentially to earthquake dynamics.

The ICNEM is focused on a class of materials that exhibit nonlinear elastic behavior including nonlinear stress-strain relationships, nonequilibrium
hysteresis. A vast number of materials fall into this class: e.g., rocks, concrete, damage solids, unconsolidated granular media, bones, and wood. The
importance to develop new theoretical descriptions of nonlinear elasticity and to developing applications. To date, applications include faulting an
of materials, granular physics inducing fault zones and avalanche, and to porous media uptake of fluid. There is no other scientific meeting in existe
manner. We intend to bring together internationally recognized scientists who will present newest developments in this field but also students, pos
experience a crash course on this topic.

Eminent scientists in the field will animate the lectures and workshops. These scientists include Koen Van Den Abeele (Catholic Univ of Leuven, BE
(Univ Pierre et Marie Curie, FR) | Marco Scalerandi (Politecnico di Torino, IT) | Yoshikazu Ohara (Tohoku Univ, JP) | Lukasz Pieczonka (AGH Univ of
Payan (Aix-Marseille Univ, FR) | Paul Johnson, TJ Ulrich, Jim Ten Cate, Pierre-Yves Le Bas, Marcel Remillieux (Los Alamos National Lab, US) | Lev O
Shokouhi (Penn State, US) | Michel Campillo, Jacques Riviere (ISTerre Grenoble, FR) | Rob Van Der Hilst (MIT, US) | Robert Behringer (Duke Univ, U
Univ, US) | John Popovics (Univ of Illinois, US) | James Langer (Univ of California Santa Barbara, US) | Robert Guyer (Univ of Nevada, US) | Jan Car
Aleshin (CNRS, FR) | Yehuda Ben-Zion (Univ of Southern California, US) | James Rice (Harvard Univ, US) | Vincent Tournat (Univ du Maine, FR).

Proceedings were slated to be published in POMA of the ASA.

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ICNEM '19 IMAGES

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