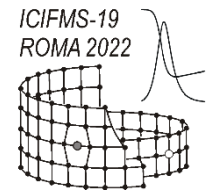


Program of the
**19th International Conference on
 Internal Friction and Mechanical Spectroscopy**
 27.06-01.07.2022, Rome, Italy



Monday 27 June			
09:20	Opening		
09:30	<i>Amorphous</i> Chair: I. Golovin	J. M. Pelletier	Mechanical spectroscopy in amorphous materials: case of bulk metallic glasses
10:20		T. Ichitsubo	Spatial elastic inhomogeneity of metallic glasses before and after structural relaxation using inelastic x-ray scattering and ultrasound techniques
10:50	coffee		
11:10	<i>Amorphous</i> Chair: J. M. Pelletier	L.V. Panina	Magnetomechanical effects in ferromagnetic microwires of Co-rich compositions
11:40		A. Berezner	Relaxation behavior of an Al-Y-Ni-Co metallic glass in as-prepared and cold-rolled state
11:50		R.A. Sergiienko	Dynamic mechanical analysis of $Zr_{65}Cu_{17.5}Ni_{10}Al_{7.5}$ metallic glass
12:00	<i>Fe-based alloys</i> Chair: I. Golovin	Q.F. Fang	Internal friction phenomena in a wide temperature range up to 1073 K in stable Fe-(0-30 at.%) Ga Alloys
12:30		I.S. Golovin	Mechanical spectroscopy of atomic ordering in Fe-(16-21) Ga-RE alloys
12:50		V.V. Palacheva	Mechanical spectroscopy of phase transitions in Fe-(23-38)Ga-RE alloys
13:00		L. Li	Effect of phase composition on the internal friction and magnetostriction in the L12/D03 biphasic Fe-27Ga alloys
13:10	lunch		
14:50	<i>Metal alloys</i> Chair: J.M. San Juan	A.V. Mikhaylovskaya	Mechanical spectroscopy of Al-based alloys with L12 precipitates
15:10		R. Montanari	Mechanical spectroscopy study of as-cast and additive manufactured AlSi10Mg
15:30		M. Tane	Kinetics of diffusionless isothermal and athermal omega transformations in Ti alloys
16:00		M.L. No	Influence of Nb on the Ti diffusion in γ -TiAl intermetallics studied by mechanical spectroscopy
16:20		P. P. Pal-Val	Effect of annealing on low-temperature acoustic properties of nanocomposites Cu-Fe obtained by batch hydroextrusion techniques
16:30	coffee		
16:50	<i>Low damping</i> Chair: F. Cordero	X. Liu	Comparing amorphous silicon prepared by e-beam evaporation and sputtering toward eliminating atomic tunneling states
17:10		T. H. Metcalf	Internal friction measurements of low energy excitations in amorphous germanium thin films
17:30		D. Lumaca	Stability of samples in coating research: from edge effect to ageing
17:50	END		

Tuesday 28 June			
09:00	Domain walls Chair: D. Kajewski	E. Salje	Internal friction in complex ferroelastic twin patterns
09:50		W. Schranz	Local properties of domain walls
10:20		L.N. Korotkov	Attenuation of low-frequency sound in the $\text{Na}_{0.875}\text{Li}_{0.125}\text{NbO}_3$ solid solution
10:30	coffee		
10:50	Ceramics and ferroelectrics Chair: F. Cordero	D. Kajewski	Lattice dynamics in niobium doped PbZrO_3 single crystals
11:20		O. Aktas	Depolarization of ferroelectrics measured by their piezoelectric and elastic response
11:50		I.I. Popov	Low-frequency internal friction in ferroelectric $\text{Ba}_{0.8}\text{Sr}_{0.2}\text{TiO}_3$ and $\text{Ba}_{0.8}\text{Sr}_{0.2}\text{TiO}_3 + 0.2$ mass. % La ceramics
12:00	Questions & Answers (also based on Questions posed by those who did not assist to the talks live)		
12:10	Meeting of the Scientific Committee		
13:30	lunch		
14:30	Ceramics and ferroelectrics Chair: D. Kajewski	P. S. da Silva Jr	Ferroic glass behavior in $(\text{Bi},\text{Na})\text{TiO}_3$ - based lead-free electroceramics
14:50		F. Trequattrini	Cation reorientation and octahedral tilting in the metal-organic perovskites MAPI and FAPI
15:10	Point defects Chair: F. Trequattrini	H. Numakura	Interaction between interstitial-substitutional solute atoms and formation of their clusters in bcc iron
15:40		C.R. Grandini	Stress-induced ordering due to oxygen present in Ti-15Mo alloy
16:00	coffee		
16:20	Point defects Chair: W. Schranz	F. Cordero	Hopping and clustering of oxygen vacancies in $\text{BaTiO}_{3-\delta}$ and the influence of the dynamically disordered off-centre
16:50		D.R.N. Correa	The role of Ag on the stress-induced ordering of oxygen in the Ti-15Zr-15Mo alloy
17:00	Theory Chair: W.Schranz	V.G. Gavriljuk	Mobility of dislocations in the iron-based C-, N-, H-solid solutions measured using internal friction: effect of electrons
17:20		V.V. Dezhin	On Internal Friction due to Elastic Waves Radiation during Dislocation Bending Vibrations in the Peierls Relief
17:30		L.V. Elnikova	Electrical, elastic properties and defect structures in isotactic polypropylene doped with nanographite and graphene nanopa
17:40	END		

Wednesday 29 June (holiday in Rome)	
15:30-17:30	Guided visit to the the Centrale Montemartini, belonging to the Musei Capitolini (http://www.centralemontemartini.org/)
20:00	Dinner at the restaurant "Le Tavernelle", Via Panisperna 48, once frequented by Enrico Fermi and his collaborators (<i>I ragazzi di Via Panisperna</i>) (https://www.thedailystar.net/magazine/2012/05/03/roman.htm)

Thursday 30 June			
09:00		S. Kustov	80 years after: new categories of magnetomechanical damping
09:50	<i>Magnetic materials</i>	H.W. Chang	Enhancement of the magneto-mechanical properties in directional solidified Fe ₈₀ Al ₂₀ alloys by doping Tb
10:10	Chair: B. Weidenfeller	H. Tanimoto	Anelasticity Study of Antiferromagnetic FeMnMo Alloy
10:20		I. Tkalcec Vâju	Magneto-mechanical damping and phase transformations in iron-based alloys
10:30	coffee		
10:50		M. Comas Muntaner	Remanent magnetization of antiferromagnetic Dy through domain wall freezing: an acoustic study
11:10	<i>Magnetic materials</i> Chair: R. Montanari	F.G. Bonifacich	Magnetic behavior in commercial iron-silicon alloys controlled by the dislocation dynamics at temperatures below 420 K
11:30		M.L. Corró	Villari points in single crystalline Dy as an example of "horizontal hysteresis" in ferroic materials
11:40	<i>Point defects</i>	P. Maugis	Thermo-kinetic modelling of the giant Snoek effect in carbon-supersaturated iron
12:00	Chair: F. Cordero	L.Z. Huang	Atomistic investigation on the impact of substitutional Al and Si atoms on the carbon kinetics in ferrite
12:20	Questions & Answers (also based on Questions posed by those who did not assist to the talks live)		
13:00	lunch		
14:20		L. Degeneve	Relaxation time shift of cobalt related internal friction peak in WC-Co cemented carbide
14:40		L. Favre	Analysis of the recrystallization peak of Ti 5553 using torsion pendulum
15:00	<i>Grain boundaries</i> Chair: M.L. No	B. Weidenfeller	Analysis of the damping capacity in a weltklang saxophone manufactured in 1969
15:20		L. Weidenfeller	Study of the damping behaviour on iron-electrodeposited copper samples from an ionic liquid
15:40		C.C. Duan	Mechanical relaxation due to grain boundary diffusion and grain boundary viscous flow
15:50	Zener medal ceremony		
16:00	coffee		
16:20	<i>Zener talk</i> Chair: D. Mari	J.M. San Juan	Internal friction at nano-scale and size-effects on damping in shape memory alloys
17:10	END		

Friday 1 July			
09:00	Shape memory alloys and phase transitions Chair: D. Mari	M. Pérez-Cerrato	Determination of the clausius-clapeyron coefficient in sma through mechanical spectroscopy
09:10		J.F. Gómez-Cortés	Superelastic damping in cu-based shape memory alloys by nano-compression tests
09:20		L. Del-Río	Internal friction associated with martensite in shape memory steels
09:30		A. Ojeda Sánchez	Effect of stabilization and destabilization by prestrain on acoustic properties and resistivity of Ni-Ti-Nb shape memory al
09:40		A. Sabareesh	Effect of Ni and Mn additions on the damping characteristics of Cu-Al-Fe based High Temperature Shape Memory Alloys
09:50		M. Sun	Defect relaxation and phase transition behavior in manganese-containing microalloyed steels
10:10	coffee		
10:30	Composites and inhomogeneous materials Chair: A. Paolone	G. Nithyanandh	Comparison of Internal friction measurements on Ni-Ti reinforced smart composites prepared by Additive Manufacturing
10:40		M. Weidenfeller	Evaluation of the diagenesis degree in archaeological bones through the Havriliak Negami expression
11:00		V. Zadorozhnyy	Mechanical properties of the metal/polymer composites membranes for hydrogen separation
11:10	Composites and inhomogeneous materials Chair: J.M. San Juan	A. Paolone	Mechanical spectroscopy study of quaternary cation ionic liquids: effects of different conformational flexibility
11:30		J. Göken	Temperature-dependent damping of the tonewood spruce
11:50		A.S. Voznesenskii	Temperature dependence of internal mechanical losses of gypsum stone with complex composition and structure
12:00	Questions & Answers (also based on Questions posed by those who did not assist to the talks live)		
12:30	Closing		

Formats of the talks

Talk type	Total time (min)	Talk+discussion (min)
Plenary	50	45 + 5
Invited	30	26 + 4
Long	20	17 + 3
Short	10	8 + 2