Tehnoredactarea computerizată a lucrărilor ştiinţifice

Seminar

Prof.dr.ing. Florea DINU

Universitatea Politehnica Timişoara
Facultatea de Constructii

Introducere

- Scrierea unei lucrari stiintifice este mijlocul prin care se comunica rezultatele cercetarii catre alti cercetatori sau membri ai comunitatii profesionale
- Structura unei lucrari stiintifice este destul de rigida si are rolul comunicarii eficiente a rezultatelor
- Formatul si structura unei lucrari stiintifice pot sa difere de la o revista la alta sau de la o disciplina la alta
- Ceea ce este insa important este principiul care sta la baza scrierii unei lucrari stiintifice si care trebuie sa va ajute sa va adaptati la cerintele majoritatii revistelor sau proceedingurilor de conferinte

Introducere

- Pregatirea pentru scrierea unei lucrari trebuie sa inceapa inainte de inceperea cercetarii si sa se finalizeze dupa ce rezultatele cercetarii au fost analizate si interpretate
  - Inainte de cercetare
    - Studiu bibliografic
  - In paralel cu cercetarea
    - Rezultatele sunt evaluate
    - Actualizare literatura de specialitate
  - Dupa definitivarea cercetarii:
    - Construirea lucrarii
    - Incepeti cu scheletul lucrarii
    - Incepeti cu sectiunile mai usoare
    - Studiati formatul revistei sau conferintei in care se va publica lucrarea
    - Scrieti o versiune preliminara (draft), nu insistati pe stil
    - Cititi lucrarea, cereti altor colegi sa examineze lucrarea
    - Finalizarea lucrarii

Introducere

- Stilul lucrarii
  - Fiti clari si concisi
  - Folositi cuvinte cu inteles precis

De evitat:

•Nu incercati sa impresionati prin folosirea unor cuvinte rar folosite

•Excludeti limbajul familial, argotic

•Daca scrieti o lucrare in limba engleza, excludeti formele scurte ("*do not*" in loc de *don't*“, "*is not*" in loc de *"isn't*")

  - Folositi timpul trecut, inclusiv atunci cand faceti referire la alte lucrari
  - Persoana I/persoana a III-a
  - Preferati verbele active celor pasive

Introducere

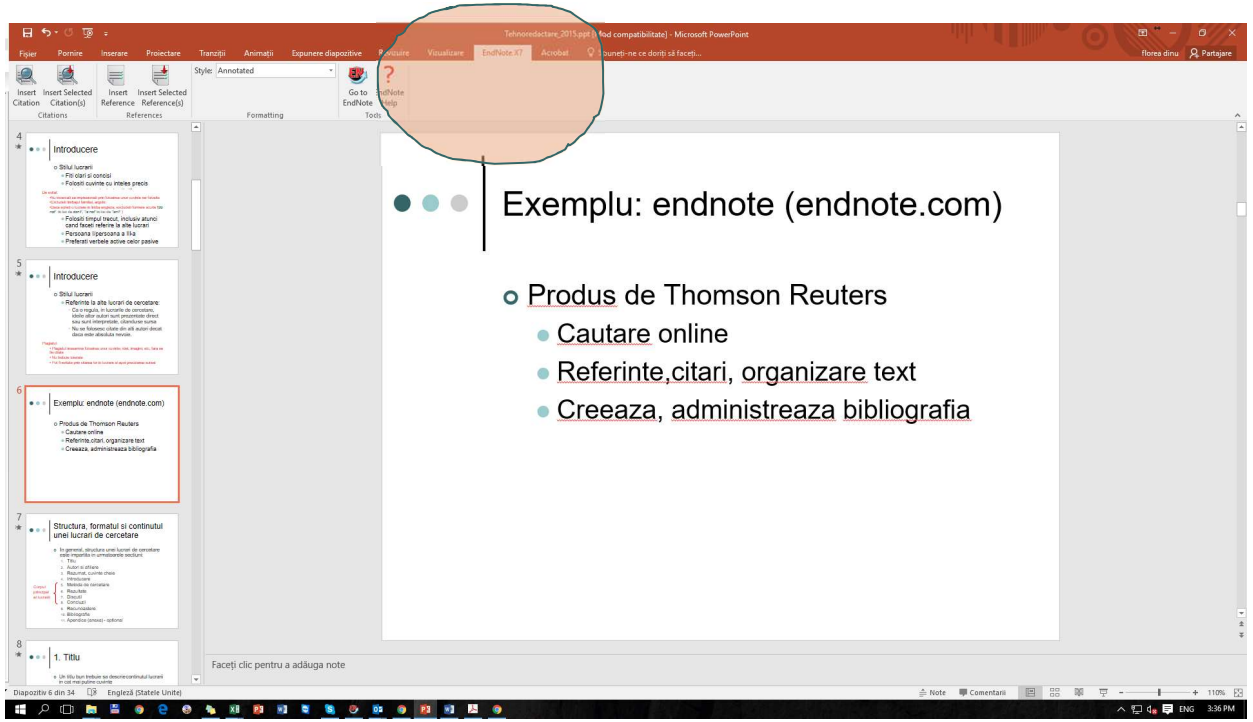
- Stilul lucrarii
  - Referinte la alte lucrari de cercetare:
    - Ca o regula, in lucrarile de cercetare, ideile altor autori sunt prezentate direct sau sunt interpretate, citandu-se sursa
    - Nu se folosesc citate din alti autori decat daca este absoluta nevoie.

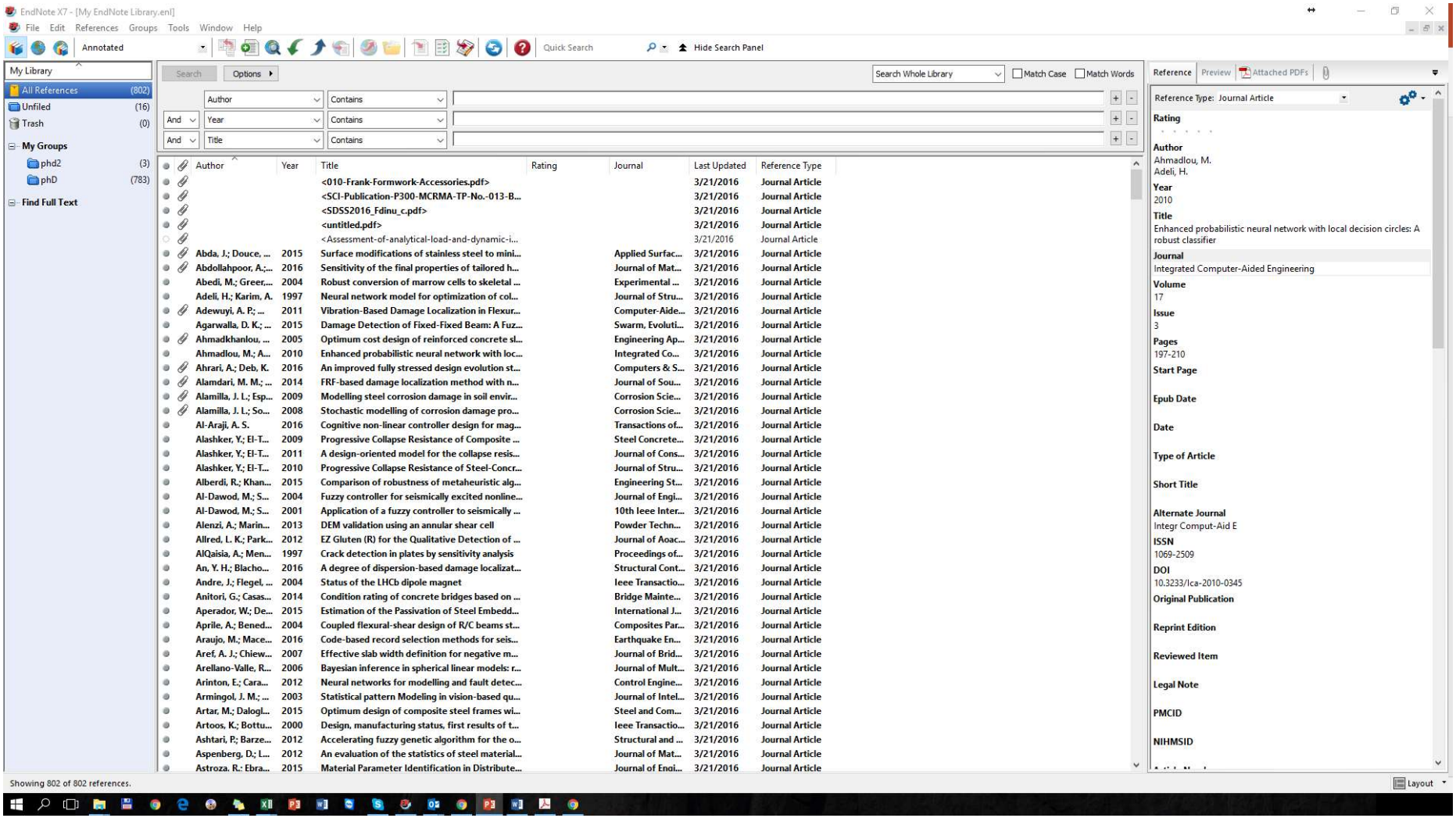
Plagiatul:

- Plagiatul inseamna folosirea unor cuvinte, idei, imagini, etc, fara sa fie citate
- Nu trebuie tolerate
- Pot fi evitate prin citarea lor in lucrare si apoi precizarea sursei

Exemplu 1: endnote (endnote.com)

- Produs de Thomson Reuters
  - Cautare online
  - Referinte,citari, organizare text
  - Creeaza, administreaza bibliografia

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And Title Contains
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<Assessment-of-analytical-load-and-dynamic-i... 3/21/2016 Journal Article
Abda, J.; Douce, ... 2015 Surface modifications of stainless steel to mini... Applied Surfac... 3/21/2016 Journal Article
Abdollahpoor, A.;... 2016 Sensitivity of the final properties of tailored h... Journal of Mat... 3/21/2016 Journal Article
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Alenzi, A.; Marin... 2013 DEM validation using an annular shear cell Powder Techn... 3/21/2016 Journal Article
Allred, L. K.; Park... 2012 EZ Gluten (R) for the Qualitative Detection of ... Journal of Aoac... 3/21/2016 Journal Article
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Andre, J.; Flegel, ... 2004 Status of the LHCb dipole magnet Ieee Transactio... 3/21/2016 Journal Article
Anitori, G.; Casas... 2014 Condition rating of concrete bridges based on ... Bridge Mainte... 3/21/2016 Journal Article
Aperador, W.; De... 2015 Estimation of the Passivation of Steel Embedd... International J... 3/21/2016 Journal Article
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Armingol, J. M.; ... 2003 Statistical pattern Modeling in vision-based qu... Journal of Intel... 3/21/2016 Journal Article
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Showing 802 of 802 references.
Reference Preview Attached PDFs
Reference Type: Journal Article
Rating
Author
Ahmadlou, M.
Adeli, H.
Year
2010
Title
Enhanced probabilistic neural network with local decision circles: A robust classifier
Journal
Integrated Computer-Aided Engineering
Volume
17
Issue
3
Pages
197-210
Start Page
Epub Date
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Type of Article
Short Title
Alternate Journal
Integr Comput-Aid E
ISSN
1069-2509
DOI
10.3233/Ica-2010-0345
Original Publication
Reprint Edition
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Layout

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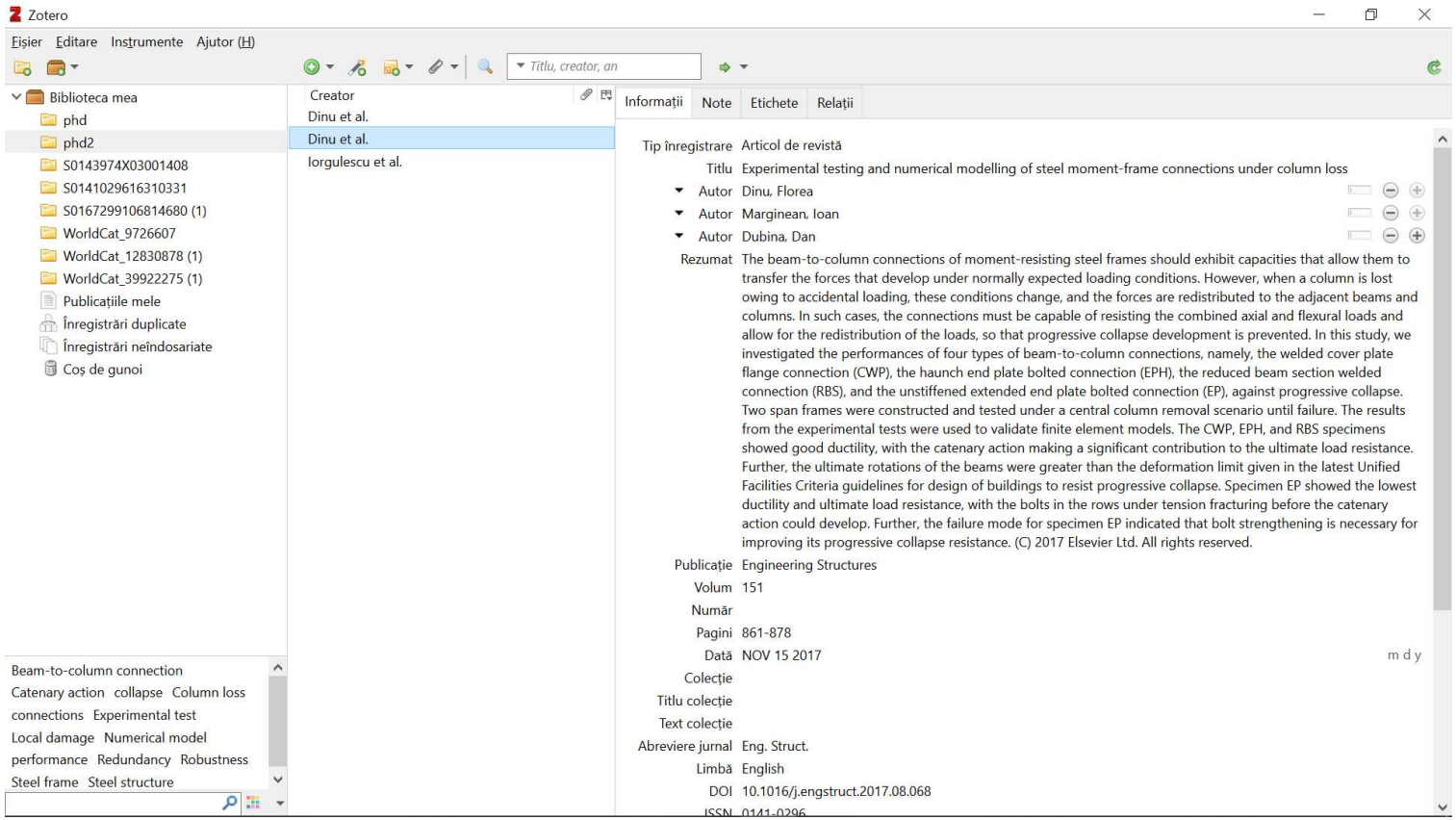
- Referinte,citari, organizare text
- Creeaza, administreaza bibliografia
- Este gratuit



Structura, formatul si continutul unei lucrari de cercetare

- In general, structura unei lucrari de cercetare este impartita in urmatoarele sectiuni:
  1. Titlu
  2. Autori si afiliere
  3. Rezumat, cuvinte cheie
  4. Introducere
  5. Metoda de cercetare
  6. Rezultate
  7. Discutii
  8. Concluzii
  9. Recunoastere
  10. Bibliografie
  11. Apendice (anexa) - optional

Corpul principal al lucrarii

1. Titlu

- Un titlu bun trebuie sa descrie continutul lucrarii in cat mai putine cuvinte

De evitat:

• Nu includeti cuvinte ca “studiul …”, “analiza …” decat daca este strict necesar

• Se pot folosi si subtitluri

Exemple:

Transformation behaviors of excluded pyrite during O2/CO2 combustion of pulverized coal

CO2 solubility in aqueous solutions containing Na+, Ca2+, Cl−, SO42− and HCO3-: The effects of electrostricted water and ion hydration thermodynamics

Steel bracing systems for the seismic upgrading of RC structures

Passive infrared thermographic imaging for mobile robot object identification

2. Autori si afiliere

- Numele autorilor si institutiile la care sunt afiliati se prezinta dupa titlu
- Se admite in unele cazuri si dubla afiliere

* Corresponding author.
E-mail addresses: kdgilbert@utexas.edu (K. Gilbert), pbennett@jsg.utexas.edu (P.C. Bennett), tongwei.zhang@beg.utexas.edu (T. Zhang), katherine.romanak@beg.utexas.edu (K.D. Romanak).
[1] These authors contributed equally

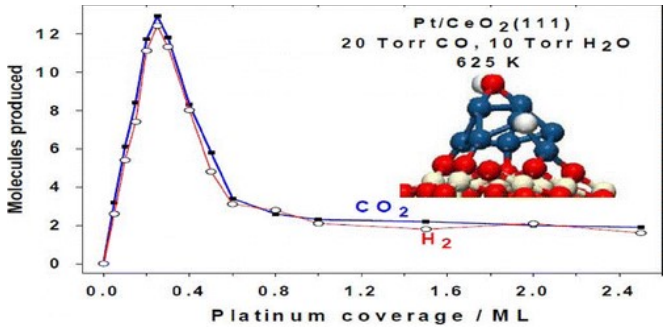
3. Rezumat, cuvinte cheie, idei principale (highlights)

- Rezumatul prezinta pe scurt scopul cercetarii sau studiului, procedura (procedurile) principala, principalele rezultate si concluzii
- Trebuie sa arate si noutatea sau importanta studiului/cercetarii
- Un abstract bine conceput este o copie in miniatura a lucrarii. El trebuie sa contina toate datele necesare fara a mai fi nevoie sa se consulte lucrarea
- Numarul de cuvinte poate sa varieze intre 150 si 250
- Rezumatul nu trebuie sa contina:
  - Referinte bibliografice
  - Figuri sau tabele sau referinte la figuri sau tabele din lucrare
  - Abrevieri sau prescurtari, in afara de cele consacrate
- Unele reviste cer si includerea unor cuvinte cheie (3-10) care sa ajute indexarea sau cautarea lucrarilor

Chimie

- A New Type of Strong Metal–Support Interaction and the Production of H2 through the Transformation of Water on Pt/CeO2(111) and Pt/CeOx/TiO2(110) Catalysts **(Journal of the American Chemical Society (ACS Publications)**

The electronic properties of Pt nanoparticles deposited on CeO2(111) and CeO*x*/TiO2(110) model catalysts have been examined using valence photoemission experiments and density functional theory (DFT) calculations. The valence photoemission and DFT results point to a new type of “strong metal–support interaction” that produces large electronic perturbations for small Pt particles in contact with ceria and significantly enhances the ability of the admetal to dissociate the O–H bonds in water. When going from Pt(111) to Pt8/CeO2(111), the dissociation of water becomes a very exothermic process. The ceria-supported Pt8 appears as a fluxional system that can change geometry and charge distribution to accommodate adsorbates better. In comparison with other water-gas shift (WGS) catalysts [Cu(111), Pt(111), Cu/CeO2(111), and Au/CeO2(111)], the Pt/CeO2(111) surface has the unique property that the admetal is able to dissociate water in an efficient way. Furthermore, for the codeposition of Pt and CeO*x* nanoparticles on TiO2(110), we have found a transfer of O from the ceria to Pt that opens new paths for the WGS process and makes the mixed-metal oxide an extremely active catalyst for the production of hydrogen.



CO2 solubility in aqueous solutions containing Na^{+}, Ca^{2+}, Cl^{-}, SO_4^{2-} and HCO3^{-}: The effects of electrostricted water and ion hydration thermodynamics

- Dissolution of CO2 into deep subsurface brines for carbon sequestration is regarded as one of the few viable means of reducing the amount of CO2 entering the atmosphere. Ions in solution partially control the amount of CO2 that dissolves, but the mechanisms of the ion's influence are not clearly understood and thus CO2 solubility is difficult to predict. In this study, CO2 solubility was experimentally determined in water, NaCl, CaCl2, Na2SO4, and NaHCO3 solutions and a mixed brine similar to the Bravo Dome natural CO2 reservoir; ionic strengths ranged up to 3.4 molal, temperatures to 140 C, and CO2 pressures to 35.5 MPa. Increasing ionic strength decreased CO2 solubility for all solutions when the salt type remained unchanged, but ionic strength was a poor predictor of CO2 solubility in solutions with different salts. A new equation was developed to use ion hydration number to calculate the concentration of electrostricted water molecules in solution. Dissolved CO2 was strongly correlated (R2 ¼ 0.96) to electrostricted water concentration. Strong correlations were also identified between CO2 solubility and hydration enthalpy and hydration entropy. These linear correlation equations predicted CO2 solubility within 1% of the Bravo Dome brine and within 10% of two mixed brines from literature (a 10 wt % NaCl þ KCl þ CaCl2 brine and a natural Naþ, Ca2þ, Cl type brine with minor amounts of Mg2þ, Kþ, Sr2þ and Br). ©
  - Keywords: Carbon sequestration Hydration energy Hydration number Dissolved CO2 Bravo Dome

Fizica

- **Field-Induced Magnetostructural Transitions in Antiferromagnetic Fe1+yTe1-xSx (The Journal of the Physical Society of Japan (JPSJ)**

The transport and structural properties of Fe1+*y*Te1-*x*S*x* (*x*=0, 0.05, and 0.10) crystals were studied in pulsed magnetic fields up to 65 T. The application of high magnetic fields resulted in a positive magnetoresistance effect with prominent hysteresis in the antiferromagnetic state. Polarizing microscope images obtained at high magnetic fields showed simultaneous occurrences of structural transitions. These results indicate that magnetoelastic coupling is the origin of the bicollinear magnetic order in iron chalcogenides.

IT

- **Neuro-Fuzzy Expert System for evaluating the performance of Distributed Software System Architecture**
- **Abstract:** A Neuro-Fuzzy Performance Evaluation Model (NFPEM) proposed in Akinnuwesi, Uzoka, Olabiyisi, and Omidiora (2012) was reviewed in this work with the view of modifying it and thus making it flexible and scalable. The neuro-fuzzy expert system (NFES) reported in this paper is an enhancement to NFPEM with expert system components. NFES can be used to evaluate the performance of Distributed Software System Architecture (DSSA) with user-centric variables as parameters for performance measurement. The algorithm developed for NFES was implemented using Coldfusion programming language and MySQL relational database management system. The prototype of NFES was simulated using some life data and the performance results obtained point to the DSSA responsiveness to the users' requirements that are defined at the requirements definition phase of the software development process. Thus the performance value is a qualitative value representing DSSA (i.e. system) responsiveness.

Abstract extins

PAPER REF: (to be assigned by the editors)

STRUCTURAL RESPONSE OF MULTI-STOREY STEEL BUILDING FRAMES TO EXTERNAL BLAST LOADING

Florea Dinu[1,2(*)], Andreea Şigăuan[1], Ioan Mărginean[1], Dan Dubină[1,2] , Emilian Ghicioi[3]
[1] Department of Steel Structures and Structural Mechanics, Politehnica University Timisoara, Romania
[2] Romanian Academy, Timisoara Branch, Timisoara, Romania
[3] National Institute for Research and Development in Mine safety and Protection to Explosion, Petrosani, Romania
[(*)] *Email:* florea.dinu@upt.ro

ABSTRACT

The paper presents the results of a numerical study on the response of multi-story steel building frames to the direct effects of external blasts. Different selections of charge sizes and distances lead to different blast effects on elements. Pressure distribution and material behaviour were validated based on experimental tests.

Keywords: steel frame building, explosive charge, blast, pressure wave, scaled distance.

INTRODUCTION

Interest of specialists for protection of buildings against explosions has increased significantly in recent years. Pressure exerted by the explosion can be very large so that it can produce extensive damage or even complete building failures. Internal explosions have usually accidental causes and are produced mainly by gas accumulations. The presence of openings limits the first pulse intensity, and the pressure fluctuations of the second phase is significance reduced. Therefore it can be assumed that the effect on the structure is static in nature. Design provisions for internal gas explosions are available in the codes. External explosions are usually caused intentionally, the source being both traditional explosives and improvised explosive devices. For such cases, the design provisions are not yet introduced in Eurocodes, often requiring the collaboration with specialists from the military field. Distribution of pressures arising from external explosions are extremely complex, especially when the explosion occurs at very short distance from the building. The paper presents the results of a numerical study on the response of multi-story steel building frames to the direct effects of external blasts. Different selections of charge sizes and distances lead to different blast effects on elements. Pressure distribution and material behavior were validated based on experimental tests.

RESULTS AND CONCLUSIONS

Calculation of peak pressure (or overpressure) of air wave (shock wave) generated by an equivalent TNT charge, it is done knowing that the overpressure is a function that depends on the distance, mass of explosive and local conditions. In literature it is widely used the scaled distance Z proposed by Hopkinson and Kranz. This method shows that two explosive charges from the same material and shape but different sizes, produce at scaled distance Z the same blast wave. Scaled distance, Z, may by expressed by the equation:

$$Z = D/\left(W^{1/3}\right) \qquad (1)$$

where: - Z is the scaled distance, in $m/kg^{1/3}$; D is the distance from the source, in m; W is the size of the load in kg (TNT or equivalent TNT).

Using the scaled distance, Z, is possible only for blasting in open spaces. A more general formula for determination of peak pressure, which takes into account, besides the distance and mass of explosives also local conditions, was developed by Richards and Moore.

$$P = A \times \left(\frac{D}{(W)^b}\right)^a \qquad (2)$$

where: P is the peak pressure of air wave caused by explosion (kPa); A is the constant site (determined experimentally); a is the exponent site (experimentally determined and always has negative value); b is the site exponent for mass of explosive charge (determined experimentally); D and W are described in Eq. 1.

Calibrations experimental formula given in Eq. 2 it can be used in case of internal explosions. To calibrate the experimental system, explosive charges were detonated inside a bunker. With the experimental values of the pressures, specific bunker parameters and pressure distribution law were determined, see Fig. 1.

For evaluating the response of frame buildings under external blast effects, a parametric study has been developed. Fig. 2 shows the steel frame building model and the charge placed at distance D from the building façade. Blast charges were incremented until failure occurs. Stand-off distances were then evaluated depending on the value of the allowed peak pressure.

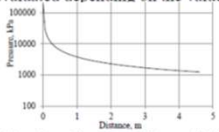


Fig. 1. Experimental pressure-distance distribution

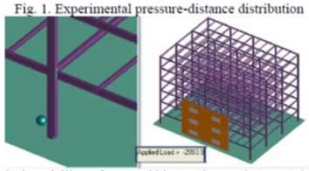


Fig. 2. Numerical modelling of external blast acting against a steel frame building

ACKNOWLEDGMENTS

Partial funding for this research was provided by the Executive Agency for Higher Education, Research, Development and Innovation Funding (UEFISCDI), Romania, under grant PN II PCCA 55/2012 "Structural conception and COllapse control performance based DEsign of multistory structures under aCcidental actions" CODEC (2012-2016), made in the frame of the Partnerships Program Joint Applied Research Projects.

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Ex. highlights

- Seismic retrofit of asymmetric structures using steel plate slit dampers

- A procedure for estimating proper amount of steel plate slit dampers in low-rise asymmetric structures was developed.
- The design objective was set to keep the ductility demand within a given target point.
- The structures installed with the slit dampers showed satisfactory inter-story drifts in both the stiff and the flexible edges.

- Reduction in interfacial tension of water–oil interface by supercritical CO_2 in enhanced oil recovery processes studied with molecular dynamics simulation

- Supercritical CO2 molecules prefer to accumulate at water–oil interface.
- CO2 accumulation leads to changes in the orientation of oil molecules.
- Driving force of CO2 accumulation is the water–oil interfacial tension difference.
- Comparable interactions of water–CO2 and oil–CO2 cause interfacial tension reduction.

Corpul principal al lucrarii

- Este alcatuit din Introducere, Metoda de cercetare, Rezultate si Discutii
- Cele patru sectiuni sunt descrise prin urmatoarele intrebari (Hill, 1965):
  - Introducere: de ce s-a realizat cercetarea?
  - Metoda: ce au cercetat?
  - Rezultate ce au descoperit?
  - Discutii ce semnificatie au rezultatele?

4. Introducere

- Introducerea trebuie:
  - Sa explice cititorului de ce s-a demarat cercetarea si la ce intrebari a incercat sa ofere raspunsuri
  - Sa capteze atentia cititorului
- Introducerea nu trebuie:
  - Sa explice lucruri generale
  - Sa contina prea multe referinte
  - Sa contina data sau concluzii din lucrare
- Se va folosi pe cat posibil modul activ
- Schema introducerii:
  - Identificarea subiectului de interes
  - Contextul cercetarii, referinte
  - Scopul, ipotezele investigatiei
  - Prezentarea pe scurt a modului de realizare a cercetarii

5. Metoda de cercetare

- Aceasta sectiune prezinta detaliat modul de desfasurare a cercetarii
- Metoda trebuie sa permita unui alt cercetator sa repete studiul si sa valideze rezultatele
- Structura acestei sectiuni este urmatoarea:
  - Elementul/fenomenul studiat
  - Structura experimentului, studiului
  - Protocolul pentru colectarea datelor
  - Cum au fost analizate datele
- Se vor da suficiente date cantitative despre experiment/studiu
- Se va folosi atat modul activ cat si cel pasiv, evitati persoana I.
- Folositi timpul trecut

6. Rezultate

- La prezentarea rezultatelor trebuie sa se tina seama de obiectivul cercetarii
- Rezultatele care nu au legatura cu obiectivul nu trebuie mentionate
- Rezultatele se cor prezenta intr-o secventa logica, in text sau cu ajutorul tabelelor, figurilor.
- Nu se vor repeta in text datele din tabele sau figuri
- Se va folosi modul pasiv, timpul trecut
- Prezentati chiar si rezultatele negative! Nu sunt neaparat greseli.
- Nu uitati sa precizati unitatile de masura

6. Rezultate

- Tabele
  - Se folosesc atunci cand rezultatele nu pot fi prezentate in cateva randuri de text
  - Trebuie sa fie usor de urmarit
  - Se vor referi in text, vor fi numerotate si vor avea un titlu corespunzator
  - Daca este cazul vor avea note de subsol sau legende
- Figuri
  - Se folosesc doar cu un scop precis
  - Prezinta intr-un mod mai convingator rezultatele – ex. graficele
  - Graficele se folosesc de regula pentru a prezenta raporturile/legaturile dintre marimile studiate
  - Daca valorile exacte sunt importante, folositi tabele

Table 1.Glass transition temperature values with varied CNC concentration and processing method

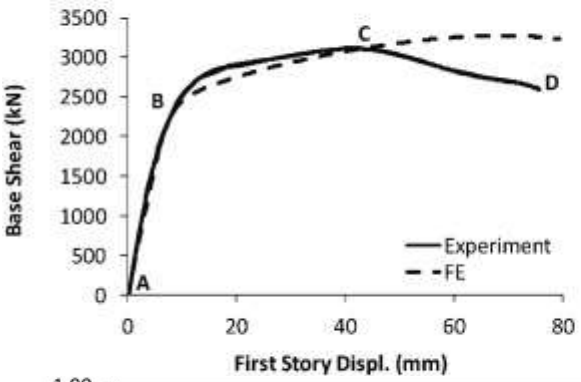
	0 wt.% CNC		5 wt.% CNC		10 wt.% CNC	
	1-step	2-step	1-step	2-step	1-step	2-step
First Heat	48.6 ± 5.9	46.7 ± 0.7	46.1 ± 3.4	45.9 ± 3.5	50.6 ± 2.4	49.2 ± 1.8
Second heat	63.0 ± 1.8	60.6 ± 4.2	63.6 ± 1.5	62.0 ± 5.4	69.8 ± 1.1	61.9 ± 5.5

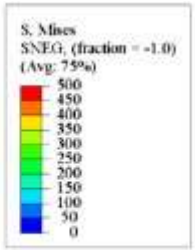
Table 1. The solubility of GO and rGO in a range of solvents by bath sonication

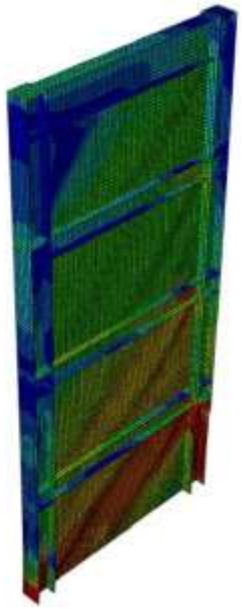
Solvent	GO solubility/μg ml^{-1}	rGO solubility/μg ml^{-1}
De-ionised water	6.6	4.74
Acetone	0.8	0.9
Methanol	0.16	0.52
Ethanol	0.25	0.91
Propan-2-ol	1.82	1.2
Ethylene glycol	5.5	4.9
Tetrahydrofuran	2.15	1.44
N,N-dimethylformamide	1.96	1.73
N-methyl-2-pyrrolidone	8.7	9.4
n-Hexane	0.1	0.61
Dichloromethane	0.21	1.16
Chloroform	1.3	4.6
Toluene	1.57	4.14
Chlorobenzene	1.62	3.4
o-Dichlorobenzene	1.91	8.94
1-Chloronaphthalene	1.8	8.1
Acetylacetone	1.5	1.02
Diethyl ether	0.72	0.4

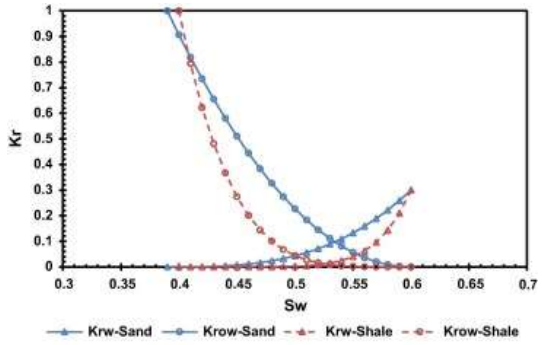
Table 3. Results of pull-out tests

Groups	Test no.	T_u (kN)	k_t (kN/mm) Test	k_t (kN/mm) Eq. (1)	d_p (mm)	d_u (mm)	Failure mode
ST1	1	111.8	212.4	844.3	3.56	3.89	CF
	2	98.7	170.4		1.13	1.36	CF
	3	115.5	363.0		1.94	2.78	CF
	Mean	**108.7**	**248.60**		**2.21**	**2.68**	**–**
ST2	1	154.6	276.1	400.0	10.17	15.18	SF
	2	174.8	179.3		10.86	18.52	SF
	3	159.6	225.6		10.36	16.88	SF
	Mean	**163.0**	**227.00**		**10.46**	**16.86**	**–**
ST3	1	168.8	192.7	262.0	12.57	16.56	SF
	2	172.2	215.7		13.38	17.81	SF
	3	172.8	193.6		13.54	20.20	SF
	Mean	**171.3**	**200.67**		**13.16**	**18.19**	**–**
ST4	1	171.9	195.2	194.8	18.97	24.80	SF
	2	159.3	281.3		16.48	19.66	SF
	3	164.6	175.0		11.97	17.02	SF
	Mean	**165.3**	**217.17**		**15.81**	**20.49**	**–**

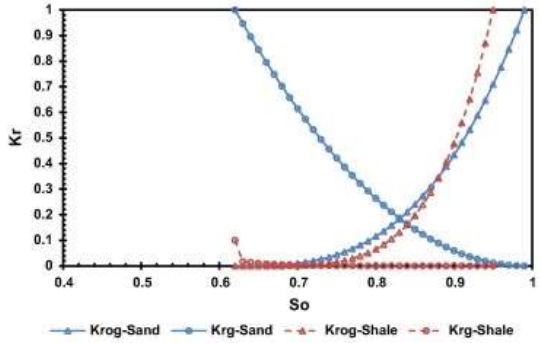




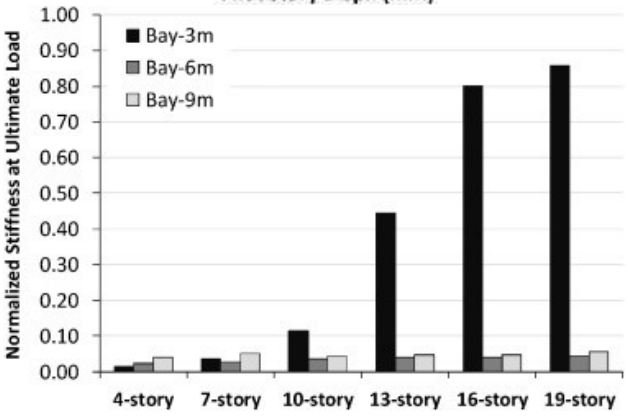


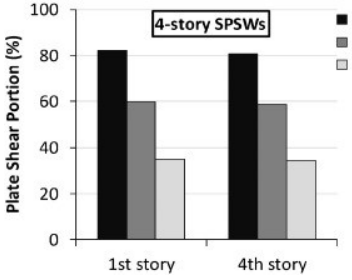


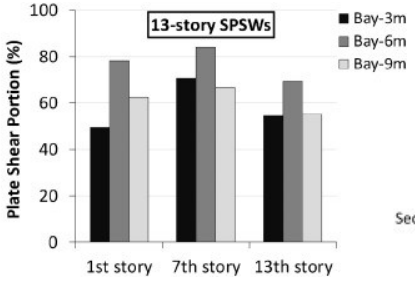
(a) Water-oil relative permeability

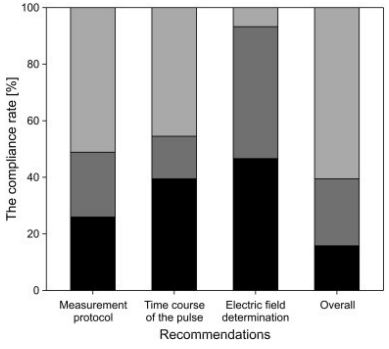


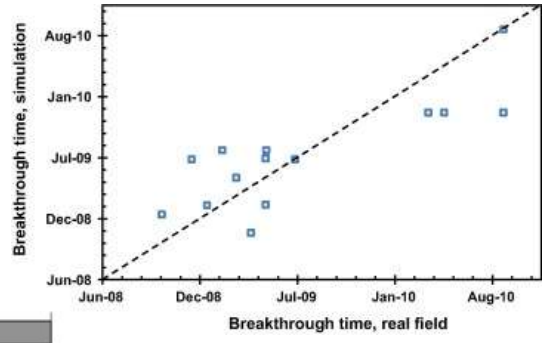
(b) Oil-gas relative permeability

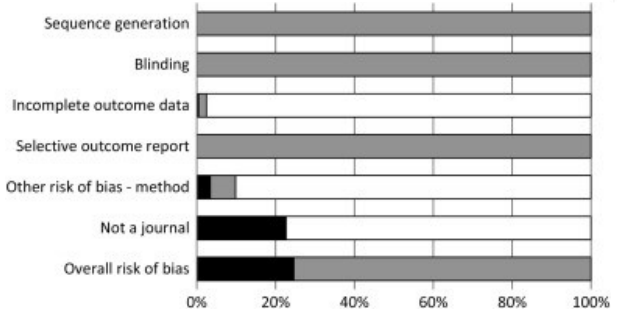


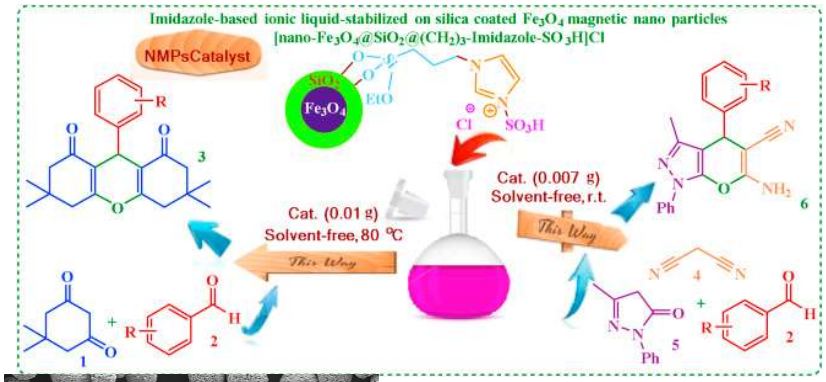


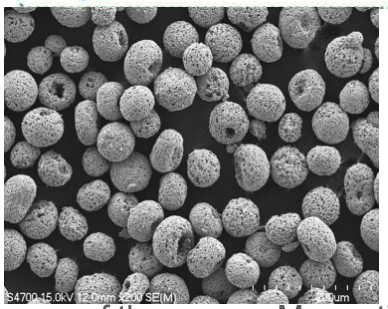


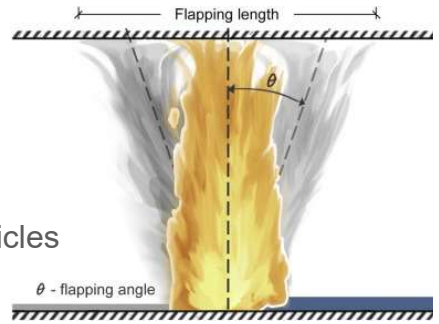


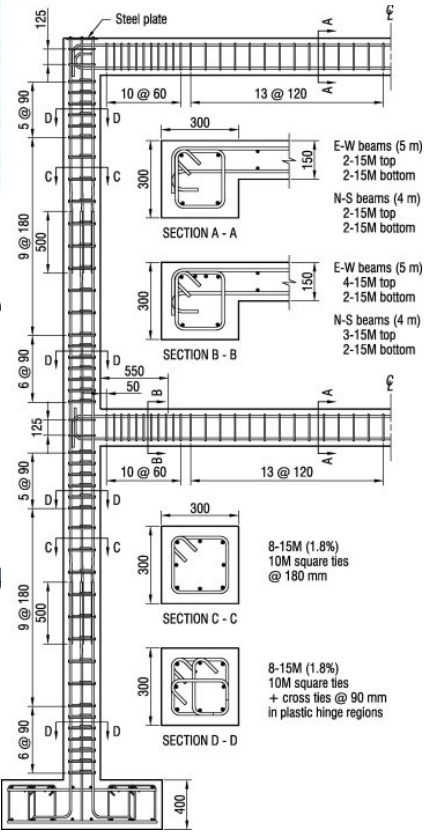


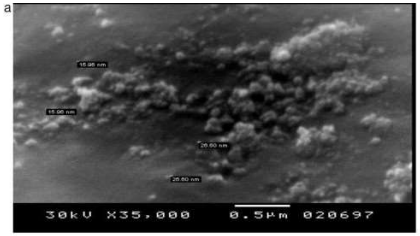




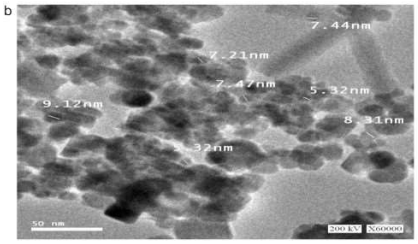


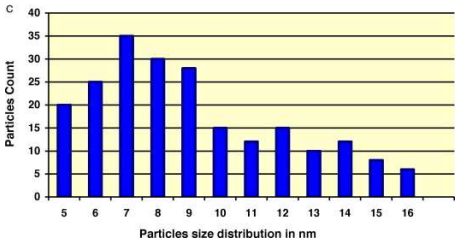


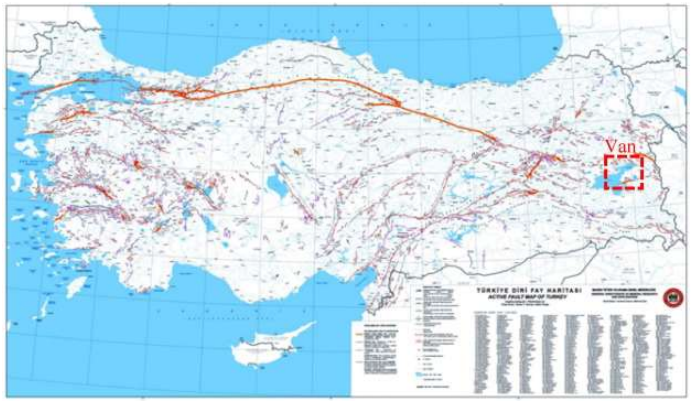




Appearance of the porous Mo particles with particle size of 58 ± 8 µm.







7. Discutii

- Nu trebuie sa repete in detaliu datele din sectiunea anterioara
- Folositi pe cat posibil stilul activ
- Discutiile au rolul de a:
  - Interpreta rezultatele in lumina a ceea ce se stia deja despre subiectul investigatiei
  - Explica stadiul nou, dupa luarea in considerare a rezultatelor
- Trebuie sa se dea raspuns la urmatoarele intrebari:
  - Rezultatele ofera raspunsuri la intrebarile initiale?
  - Rezultatele sunt in concordanta cu alte rezultate similare?
  - Daca rezultatele se dovedesc corecte, care sunt urmatorii pasi de urmat?

8. Concluzii

- O lucrare se va incheia cu concluzii cat mai clare
- Concluziile trebuie legate de scopul studiului
- Autorii trebuie sa evite concluzii si remarci care nu sunt sustinute de date

9. Recunoastere (Acknowledgments)

- In lucrare se poate prezenta suportul pe care l-au primit autorii, de exemplu:
  - Suport financiar sau material din partea unor institutii
  - Suport tehnic sau intelectual. Acesta se prezinta de regula intr-un paragraf separat. Se va cere in prealabil acceptul celui mentionat pentru recunoastere

Ex.

- Acknowledgments

This work was supported as part of the Center for Frontiers of Subsurface Energy Security, an Energy Frontier Research Center funded by the U.S. Department of Energy, Office of Science, Basic Energy Sciences under Award # DEeSC0001114. Research at the DGS ICP-MS and analytical chemistry labs were supported by the Jackson School of Geosciences at the University of Texas at Austin. The authors would like to thank Randall Cygan for providing insight into the molecular interactions during solvation, Changbing Yang for use of his model implementation for fugacity and CO2 solubility predictions and Patricia Bobeck for her invaluable help with editing.

10. Bibliografie

- Nu trebuie confundata cu lista de lucrari studiate de catre autor dar nereferite in textul lucrarii
- Cu exceptia studiilor bibliografice, lucrarile au regula pana in 40 de referinte bibliografice (Halsey, 1998).
- Se vor evita referintele la “comunicari personale” sau lucrari nepublicate

11. Anexe

- Contin de regula informatii care nu sunt esentiale pentru intelegerea lucrarii
- Apare destul de rar in reviste sau proceedinguri de conferinte

- Michael Ernst, Associate Professor, Computer Science & Engineering, University of Washington, Choosing a venue: conference or journal? (Note: This webpage is oriented toward computer scientists. The information is not necessarily accurate for other scientific fields.)

Should you publish your work in a conference or in a journal?

Why to prefer a conference

- In computer science, your preference should be for conference publication:
  - Conferences have higher status. In part this is a historical artifact of the field of computer science, but it is self-perpetuating since that makes the best researchers want to send their papers to conferences rather than journals.
  - Conferences provide higher visibility and greater impact. Many people will attend your talk, you will have the opportunity to answer questions, and people will talk to both you and to one another in the hallways. Even disregarding the event itself, more non-attendees read conference proceedings than read journals.
  - Conferences have higher quality. Acceptance rates to good conferences are often around 10% (at least in software engineering, which is my field), whereas even the best journals are less selective. Naturally, there exist low-quality conferences (and journals), but if your c.v. is cluttered with them, then you will appear to be incapable of good work (even if the work you published in those venues really is good!), and your good publications will not stand out. A good rule of thumb is that the best conferences are sponsored by ACM.
  - Conferences are more timely. It can take years for a journal publication to appear (or even for reviews to come back), whereas the turnaround time for conference reviews is a few months, and the proceedings also appear quickly.
  - Conferences have higher standards of novelty. Journals often only require 20-30% of the material to be new, compared to an earlier conference version.
- Why to prefer a journal
  - There are situations in which journal publication is desirable.
  - Journals may have longer page limits. If you have too many experimental results to fit in a conference publication, then a journal affords an opportunity to include them. You can also include proofs that are too long (or boring) for a shorter publication. A journal paper could recap or given an overview of an entire research area.
  - Journal reviews tend to be more detailed. A journal reviewer may spend days on a paper, whereas a conference reviewer cannot afford to do so for each of the many papers he or she is assigned. This is in part because conference reviewers often believe the authors' claims (regarding a proof, for example), whereas journal reviewers are expected to verify them. It may also be in part because of the expectation that the paper will be revised and re-submitted to the same journal. In any event, the extra details can help you to improve your work or to understand its shortcomings.
  - Journals give the opportunity to revise your work and re-submit it for review. Actually, conferences give this too: if a paper is rejected from one conference, then you can revise based on the reviewers' comments and submit to a different conference, or the same one the next year.
  - Journals have higher acceptance rates, giving the opportunity to get your research published. The same is true of workshops. These are particularly good venues for people who are just starting their research careers.
  - Some lesser-ranked universities evaluate faculty on the basis of journal publications, because the Dean of Engineering is unable or unwilling to understand computer science. In most scientific fields, journals have higher standards than conferences; computer science is a rare exception. A top-ranked CS department can convince the dean to use the proper evaluation metric. A lower-ranked CS department cannot (the dean may think the department is trying to fool him or her). If you are at one of these universities, you will need to publish in journals, probably by submitting slightly revised versions of your conference papers to journals. The rush for people at lower-ranked universities (some of whom are excellent researchers, and some of whom are not) to submit even marginal results to journals is another regrettable factor that tends to lower the overall quality of journals.
  - The best papers at a conference are often solicited for expedited journal publication. I sometimes decline these opportunities, but your circumstances may be different. Whether you accept this invitation should be based on the factors above, such as whether there is value to the community of an expanded version of the paper, and how much more work it is to prepare the journal version. (For example, is there a thesis, technical report, or other document with additional material beyond the conference paper? Even better, are there additions that were suggested by reviewers or during discussions at the conference?)
  - The journal version of a publication will be cited more than the conference version, because the journal version has a later date and thus seems more authoritative. This is a good thing if the journal version adds real value (or corrects problems!). However, if you have cluttered the paper with a lot of details that aren't crucial (like extra tables of results, experiments that support your point slightly less strongly than the main ones, or discussions of tangential issues), then your paper may actually have less impact because readers will get mired in the irrelevant details. Good writing can avoid such problems.

LaTeX

LATEX

- Este un sistem de pregatire a textelor pentru tipărire
- A fost dezvoltat de Donald Knuth, in anul 1977 (Tex)
- Leslie Lamport – LATEX: a extins setul standard de macroinstructiuni, a redefinit o parte din instructiunile lui Knuth.
- Este utilizat cu precadere in editarea documentelor din domeniul stiintific
- In prezent este solicitat la redactarea articolelor pentru reviste si conferinte stiintifice
- Mod de lucru:
  - Documentul este pregatit in forma text, iar pentru asta poate fi folosit orice editor de text (ex. Notepad)
  - Sursa text este apoi compilata pentru a obtine documentul intr un format intermediar - DVI (dvi = device independent file)
  - Documentul este apoi tiparit sau convertit in alte formate (ex. PDF)

Principii generale

- Atunci cand creati un fisier LaTeX, trebuie respectate cateva principii generale:
  - Toate datele de intrare – text si comenzi de formatare – sunt in format “ASCII”
  - Spatiile sau liniile goale. O linie goala conduce insa la crearea unui paragraf nou
  - Comenzile incep intotdeauna astfel: **\documentclass**
  - Parantezele sunt folosite pentru “argumente”: **\begin{document}**
  - Parantezele drepte sunt folosite pentru “argumente optionale” (de exemplu marimea fontului):
  - **\documentstyle[11pt]{article}**
  - Comenzile sunt “case sensitive”- litere mari sau mici - **\documentstyle** nu **\DocumentStyle**
  - Unele caractere trebuie generate prin secvente de control (adica ghilimele, paranteze {}, [], etc.).
- Clase de documente
  - **articol** – pentru documente scurte ce trebuie publicate
  - **raport** – documente mai lungi, asemnatoare articolelor, au insa in continut mai multe capitole
  - **carte** – pentru documente voluminoase
  - **scrisoare** – pentru editarea scrisorilor

http://www.cs.cornell.edu/info/misc/latex-tutorial/introduction.html

Exemplu

```
\documentclass[12pt]{article}
\title{\LaTeX}
\date{}
\begin{document}
\maketitle \LaTeX{} este un sistem de preg\u{a}tire a textului pentru
programul de tip\u{a}rire \TeX{}. Acesta ofer\u{a} posibilitatea program\u{a}rii
caracteristicilor necesare tip\u{a}ririi \cb{s}i faciliteaz\u{a} automatizarea
sarcinilor recurente \^\{i}n procesul de culegere a textului, inclusiv
numerotarea, tabele \cb{s}i figuri, referin\cb{t}e \^\i{n}cruci\cb{s}ate,
bibliografie, etc.
\LaTeX{} a fost scris \^\{i}n 1984 de Leslie Lamport \c{s}i a devenit metoda
dominant\u{a} pentru utilizarea \TeX, ast\u{a}zi pu\cb{t}ine persoane mai scriu
direct \^\i{n} \TeX.
Versiunea curent\u{a} este \LaTeXe.
\newline
% Acesta este un comentariu, nu este vizibil \^\i{n} varianta pentru ecran.
% Următoarele demonstreaz\u{a} puterea tip\u{aÎ}ririi cu LaTeX.
\begin{eqnarray}
E &=& mc^2 \\
m &=& \frac{m_0}{\sqrt{1-\frac{v^2}{c^2}}}
\end{eqnarray}
\end{document}.
```

LaTeX

LaTeX este un sistem de pregătire a textului pentru programul de tipărire TeX. Acesta oferă posibilitatea programării caracteristicilor necesare tipăririi şi facilitează automatizarea sarcinilor recurente în procesul de culegere a textului, inclusiv numerotarea, tabele şi figuri, referiţe încrucişate, bibliografie, etc. LaTeX a fost scris în 1984 de Leslie Lamport şi a devenit metoda dominantă pentru utilizarea TeX, astăzi puţine persoane mai scriu direct în TeX. Versiunea curentă este LaTeX 2_ε.

$$E = mc^2 \quad (1)$$

$$m = \frac{m_0}{\sqrt{1-\frac{v^2}{c^2}}} \quad (2)$$

Caracter	Cod LaTeX	Ieşire LaTeX
ă	\u{a}	ă
Ă	\u{A}	Ă
â	\^{a}	â
Â	\^{A}	Â
î	\^{i}	î
Î	\^{I}	Î
ș	\cb{s}	ș
Ș	\cb{S}	Ș
ț	\cb{t}	ț
Ț	\cb{T}	Ț

http://ro.wikipedia.org/wiki/Fi%C8%99ier:LaTeX_iesire.svg