



Tehnoredactarea computerizată a lucrărilor științifice

Seminar

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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

- Pregătirea pentru scrierea unei lucrări începe odată cu cercetarea (sau înainte) și se finalizează după ce rezultatele cercetării au fost analizate și interpretate
 - Înainte de cercetare
 - Studiu bibliografic
 - În paralel cu cercetarea
 - Rezultatele sunt evaluate
 - Actualizare literatură de specialitate
 - După definitivarea cercetării:
 - Construirea lucrării
 - Începeți cu scheletul lucrării
 - Începeți cu secțiunile mai ușoare
 - Studiați formatul revistei sau conferinței în care se va publica lucrarea
 - Scrieți o versiune preliminară (draft), nu insistați pe stil
 - Citiți lucrarea, cereți altor colegi să examineze lucrarea
 - Finalizarea lucrării



Introducere

○ Stilul lucrării

- Fiti clari și 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 lucrării

- Referințe la alte lucrări de cercetare:
 - Ca o regulă, în lucrările de cercetare, ideile altor autori sunt prezentate direct sau sunt interpretate, citându-se sursa
 - Nu se folosesc citate din alți autori decât dacă este absolută nevoie.

Plagiatul:

- Plagiatul înseamnă folosirea unor cuvinte, idei, imagini, etc, fără să fie citate
- Nu trebuie tolerate
- Pot fi evitate prin citarea lor în lucrare și apoi precizarea sursei

Exemplu 1: endnote (endnote.com)

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

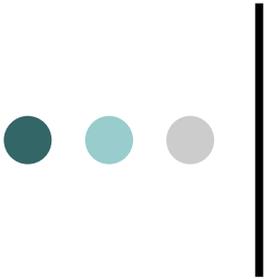
The screenshot displays the EndNote X7 software interface. The main window shows a list of references with columns for Author, Year, Title, Rating, Journal, Last Updated, and Reference Type. The left sidebar shows the library structure, including 'My Library' (802 references), 'Unfiled' (16), and 'Trash' (0). The right sidebar shows the details of a selected reference, including the author (Ahmadlou, M.), year (2010), title ('Enhanced probabilistic neural network with local decision circles: A robust classifier'), journal ('Integrated Computer-Aided Engineering'), volume (17), issue (3), and pages (197-210).

Author	Year	Title	Rating	Journal	Last Updated	Reference Type
		<010-Frank-Formwork-Accessories.pdf>			3/21/2016	Journal Article
		<SCI-Publication-P300-MCRMA-TP-No.-013-B...>			3/21/2016	Journal Article
		<SDSS2016_Fdinu_c.pdf>			3/21/2016	Journal Article
		<untitled.pdf>			3/21/2016	Journal Article
		<Assessment-of-analytical-load-and-dynamic-l...			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
Abedi, M.; Greer...	2004	Robust conversion of marrow cells to skeletal ...		Experimental ...	3/21/2016	Journal Article
Adeli, H.; Karim, A.	1997	Neural network model for optimization of col...		Journal of Stru...	3/21/2016	Journal Article
Adewusi, A. P.; ...	2011	Vibration-Based Damage Localization in Flexur...		Computer-Aide...	3/21/2016	Journal Article
Agarwala, D. K.; ...	2015	Damage Detection of Fixed-Fixed Beam: A Fuz...		Swarm, Evoluti...	3/21/2016	Journal Article
Ahmadkhanlou, ...	2005	Optimum cost design of reinforced concrete sl...		Engineering App...	3/21/2016	Journal Article
Ahmadlou, M.; A...	2010	Enhanced probabilistic neural network with loc...		Integrated Co...	3/21/2016	Journal Article
Ahrari, A.; Deb, K.	2016	An improved fully stressed design evolution st...		Computers & S...	3/21/2016	Journal Article
Alamdari, M. M.; ...	2014	FRF-based damage localization method with n...		Journal of Sou...	3/21/2016	Journal Article
Alamilla, J. L.; Esp...	2009	Modelling steel corrosion damage in soil enviro...		Corrosion Scie...	3/21/2016	Journal Article
Alamilla, J. L.; So...	2008	Stochastic modelling of corrosion damage pro...		Corrosion Scie...	3/21/2016	Journal Article
Al-Araji, A. S.	2016	Cognitive non-linear controller design for mag...		Transactions of...	3/21/2016	Journal Article
Alashker, Y.; El-T...	2009	Progressive Collapse Resistance of Composite ...		Steel Concrete...	3/21/2016	Journal Article
Alashker, Y.; El-T...	2011	A design-oriented model for the collapse resis...		Journal of Cons...	3/21/2016	Journal Article
Alashker, Y.; El-T...	2010	Progressive Collapse Resistance of Steel-Concr...		Journal of Stru...	3/21/2016	Journal Article
Alberdi, R.; Khan...	2015	Comparison of robustness of metaheuristic alg...		Engineering St...	3/21/2016	Journal Article
Al-Dawod, M.; S...	2004	Fuzzy controller for seismically excited nonlin...		Journal of Engl...	3/21/2016	Journal Article
Al-Dawod, M.; S...	2001	Application of a fuzzy controller to seismically ...		10th Ieee Inter...	3/21/2016	Journal Article
Alenzi, A.; Marini...	2013	DEM validation using an annular shear cell		Powder Techn...	3/21/2016	Journal Article
Alfred, L. K.; Park...	2012	E2 Gluten (R) for the Qualitative Detection of ...		Journal of Aoc...	3/21/2016	Journal Article
AlQaisia, A.; Men...	1997	Crack detection in plates by sensitivity analysis		Proceedings of...	3/21/2016	Journal Article
An, Y. H.; Blacho...	2016	A degree of dispersion-based damage localizat...		Structural Cont...	3/21/2016	Journal Article
Andre, J.; Flegel...	2004	Status of the LHCb dipole magnet		Ieee Transacti...	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 Embedde...		International J...	3/21/2016	Journal Article
Aprile, A.; Bened...	2004	Coupled flexural-shear design of R/C beams st...		Composites Par...	3/21/2016	Journal Article
Araujo, M.; Mace...	2016	Code-based record selection methods for seis...		Earthquake En...	3/21/2016	Journal Article
Aref, A. J.; Chiew...	2007	Effective slab width definition for negative m...		Journal of Brid...	3/21/2016	Journal Article
Arellano-Valle, R...	2006	Bayesian inference in spherical linear models: ...		Journal of Mult...	3/21/2016	Journal Article
Arinton, E.; Cara...	2012	Neural networks for modelling and fault detec...		Control Engine...	3/21/2016	Journal Article
Armingo, J. M.; ...	2003	Statistical pattern Modeling in vision-based qu...		Journal of Inte...	3/21/2016	Journal Article
Artar, M.; Dalogl...	2015	Optimum design of composite steel frames w...		Steel and Com...	3/21/2016	Journal Article
Artoso, K.; Bottu...	2000	Design, manufacturing status, first results of ...		Ieee Transacti...	3/21/2016	Journal Article
Ashtari, P.; Barze...	2012	Accelerating fuzzy genetic algorithm for the o...		Structural and ...	3/21/2016	Journal Article
Aspenberg, D. L...	2012	An evaluation of the statistics of steel material...		Journal of Mat...	3/21/2016	Journal Article
Astroza, R.; Tbra...	2015	Material Parameter Identification in Distribute...		Journal of Enol...	3/21/2016	Journal Article

Exemplu 2: Zotero (<https://www.zotero.org/>)

- Referinte, citari, organizare text
- Creeaza, administreaza bibliografia
- Utilizarea este gratuita

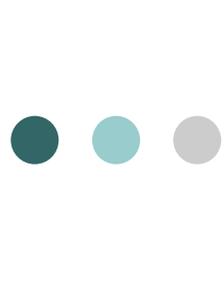
The screenshot displays the Zotero desktop application. The left sidebar shows a library structure with folders like 'phd' and 'phd2', and a list of items including 'S0143974X03001408', 'S0141029616310331', 'S0167299106814680 (1)', 'WorldCat_9726607', 'WorldCat_12830878 (1)', and 'WorldCat_39922275 (1)'. The main pane shows the details of a selected item, 'Dinu et al.' by 'Iorgulescu et al.'. The details include the title 'Experimental testing and numerical modelling of steel moment-frame connections under column loss', authors 'Dinu, Florea', 'Marginean, Ioan', and 'Dubina, Dan', and a detailed abstract. The publication information is 'Engineering Structures', Volume 151, pages 861-878, dated NOV 15 2017. The DOI is 10.1016/j.engstruct.2017.08.068 and the ISSN is 0141-0296. A tag cloud at the bottom left lists terms like 'Beam-to-column connection', 'Catenary action', 'collapse', 'Column loss connections', 'Experimental test', 'Local damage', 'Numerical model', 'performance', 'Redundancy', 'Robustness', 'Steel frame', and 'Steel structure'.



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, idei principale (highlights)
 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



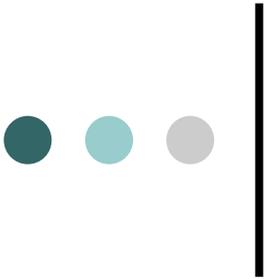
2. Autori si afiliere

- 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)

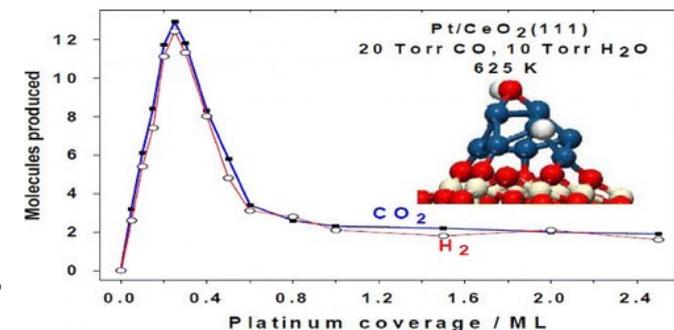
- Rezumatul prezinta pe scurt scopul cercetarii sau studiului, procedura (procedurile) principala, principalele rezultate si concluzii
- Trebuie sa arate si noutatea sau importanta studiului/cercetarii
- Un abstract bine conceput este o copie in miniatura a lucrarii. El trebuie sa contina toate datele necesare fara a mai fi nevoie sa se consulte lucrarea
- Numarul de cuvinte poate sa varieze intre 150 si 250 (posibil 500)
- 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/conferinte 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/CeO_x/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⁺, Ca²⁺, Cl⁻, SO₄²⁻ 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 ($R^2 \approx 0.96$) 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, Ca^{2þ}, Cl type brine with minor amounts of Mg^{2þ}, Kþ, Sr^{2þ} and Br).
©
- Keywords: Carbon sequestration Hydration energy Hydration number Dissolved CO₂ Bravo Dome



Fizica

- **Field-Induced Magnetostructural Transitions in Antiferromagnetic $\text{Fe}_{1+y}\text{Te}_{1-x}\text{S}_x$ (The Journal of the Physical Society of Japan (JPSJ))**

The transport and structural properties of $\text{Fe}_{1+y}\text{Te}_{1-x}\text{S}_x$ ($x=0, 0.05, \text{ and } 0.10$) 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. ©2012 *The Physical Society of Japan*



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

Extended Abstract Template:

How to write two-pager extended abstract for IEEE IFETC 2019

First A. Author^{1,2,*}, Second B. Author², and Third C. Author³

¹School of Mechatronic Systems Engineering, Simon Fraser University, Burnaby, Canada

²University of Groningen, Kapteyn Astronomical Institute, Groningen, the Netherlands

³California Institute of Technology, Pasadena, CA 91125, USA

*Contact: First.Author@sfu.ca, phone +1-778 782 0000

Abstract— This document gives formatting instructions for authors preparing extended abstracts in Microsoft Word for publication in the program and proceedings for IFETC2019. The authors are asked to follow the instructions given in the document when preparing their abstracts to assist the Local Organizing Committee with the preparation of the conference program and proceedings. You can use this document as both an instruction set and as a template into which you can type or paste your own text.

I. INTRODUCTION

This document is a template based on the IEEE template used for IEEE Transactions. This should make it relatively easy for extended abstracts submitted to be modified to form either a final IFETC2019 proceedings paper. An electronic copy of this template can be downloaded from the conference website <https://attend.ieee.org/ifetc-2019/>. If you have questions, please contact the conference organizers.

Finished papers should be submitted as PDF files to EDAS webpage: <http://edas.info/N25816>

II. PAGE LAYOUT

An easy way to comply with the conference paper formatting requirements is to use this document as a template and simply type your text into it or use the paste function.

A. Page Layout

The paper can be maximum ten pages in length.

Your paper must use a page size corresponding to the US Letter paper size, which is 216mm (8.5") wide and 279mm (11") long. The margins must be set as follows:

- Top = 18mm (0.7")
- Bottom = 18mm (0.7")
- Left = Right = 16.5mm (0.65")

Your paper must be in two column format with a column width of 90mm (3.55") and a space of 5mm (0.2") between columns.

Do not edit the header or footer of the document. Page numbers will be inserted later.

III. PAGE STYLE

All paragraphs must be indented. All paragraphs must be justified, i.e. both left-justified and right-justified.

A. Text Font of Entire Document

The entire document should be in Times New Roman or Times font. Type 3 fonts must not be used. Other font types may be used if needed for special purposes.

Recommended font sizes are shown in Table 1.

B. Title and Author Details

Title must be in 24 pt Regular font. Author name must be in 11 pt Regular font. Author affiliation must be in 10 pt Italic. Contact email address must be in 9 pt Courier Regular font.

TABLE I
FONT SIZES FOR PAPERS

Font Size	Appearance (in Time New Roman or Times)		
	Regular	Bold	Italic
8	table caption (in Small Caps), figure caption, reference item		reference item (partial)
9	Contact author email address (in Courier), cell in a table	abstract body	abstract heading (also in Bold)
10	level-1 heading (in Small Caps), paragraph		level-2 heading, level-3 heading, author affiliation
11	author name		
24	title		

All title and author details must be in single-column format and must be centered.

To avoid confusion, the family name must be written as the last part of each author name (e.g. John A.K. Smith).

Each affiliation must include, at the very least, the name of the institute/university and the name of the country where the author is based (e.g. University of Tokyo, Japan).

Email address is compulsory for the corresponding author.

C. Figures and Tables

Figures and tables must be centered in the column. Large figures and tables may span across both columns. Any table or

figure that takes up more than 1 column width must be positioned either at the top or at the bottom of the page.

Graphics may be full color. All colors will be retained in the online proceedings but will be gray scale in the printed proceedings. Graphics must not use stipple fill patterns because they may not be reproduced properly. Please use only **SOLID FILL** colors which contrast well both on screen and on a black-and-white hardcopy, as shown in Fig. 1.

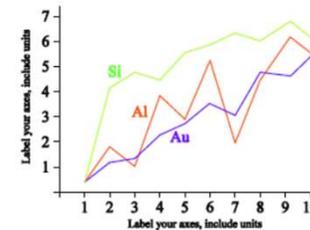


Fig. 1 A sample line graph using colors which contrast well both on screen and on a black-and-white hardcopy

Fig. 2 shows an example of a low-resolution image which would not be acceptable, whereas Fig. 3 shows an example of an image with adequate resolution. Check that the resolution is adequate to reveal the important detail in the figure.

Please check all figures in your paper both on screen and on a black-and-white hardcopy. When you check your paper on a black-and-white hardcopy, please ensure that:

- the colors used in each figure contrast well,
- the image used in each figure is clear,
- all text labels in each figure are legible,
- That each figure is centred.

D. Figure Captions

Figures must be numbered using Arabic numerals. Figure captions must be in 8 pt Regular font. Captions of a single line (e.g. Fig. 2) must be centered whereas multi-line captions must be justified (e.g. Fig. 1). Captions with figure numbers must be placed after their associated figures, as shown in Fig. 1.



Fig. 2 Example of an unacceptable low-resolution image



Fig. 3 Example of an image with acceptable resolution

E. Table Captions

Tables must be numbered using uppercase Roman numerals. Table captions must be centred and in 8 pt Regular font with Small Caps. Every word in a table caption must be capitalized except for short minor words as listed in Section III-B. Captions with table numbers must be placed before their associated tables, as shown in Table 1.

F. Page Numbers, Headers and Footers

Page numbers and footers must not be used. Please leave the header unchanged.

G. Links and Bookmarks

All hypertext links and section bookmarks will be removed from papers during the processing of papers for publication. If you need to refer to an Internet email address or URL in your paper, you must type out the address or URL fully in Regular font.

H. References

The heading of the References section must not be numbered. All reference items must be in 8 pt font. Please use Regular and Italic styles to distinguish different fields as shown in the References section. Number the reference items consecutively in square brackets (e.g. [1]).

When referring to a reference item, please simply use the reference number, as in [2]. Do not use "Ref. [3]" or "Reference [3]" except at the beginning of a sentence, e.g. "Reference [3] shows ...". Multiple references are each numbered with separate brackets (e.g. [2], [3], [4]–[6]).

IV. CONCLUSIONS

This template is partly based on the IEEE extended abstract template.

ACKNOWLEDGMENT

The heading of the Acknowledgment section and the References section must not be numbered.

REFERENCES

- [1] S. M. Metev and V. P. Vuiko, *Laser Assisted Microtechnology*, 2nd ed., R. M. Osgood, Jr., Ed. Berlin, Germany: Springer-Verlag, 1998.
- [2] J. Breckling, Ed., *The Analysis of Directional Time Series: Applications to Wind Speed and Direction*, ser. Lecture Notes in Statistics. Berlin, Germany: Springer, 1989, vol. 61.
- [3] S. Zhang, C. Zhu, J. K. O. Sin, and P. K. T. Mok, "A novel ultrathin elevated channel low-temperature poly-Si TFT," *IEEE Electron Device Lett.*, vol. 20, pp. 569–571, Nov. 1999.
- [4] M. Wegmüller, J. P. von der Weid, P. Oberson, and N. Gisin, "High resolution fiber distributed measurements with coherent OFDR," in *Proc. ECOC'00*, 2000, paper 11.3.4, p. 109.
- [5] R. E. Sorace, V. S. Reinhardt, and S. A. Vaughn, "High-speed digital-to-RF converter," U.S. Patent 5 668 842, Sept. 16, 1997.
- [6] (2002) The IEEE website. [Online]. Available: <http://www.ieee.org/>



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 CO₂ 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 lucrării

- Este alcătuit din Introducere, Metoda de cercetare, Rezultate și Discuții
- Cele patru secțiuni sunt descrise prin următoarele întrebări (Hill, 1965):
 - Introducere: de ce s-a realizat cercetarea?
 - Metoda: ce au cercetat?
 - Rezultate: ce au descoperit?
 - Discuții: ce semnificație 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

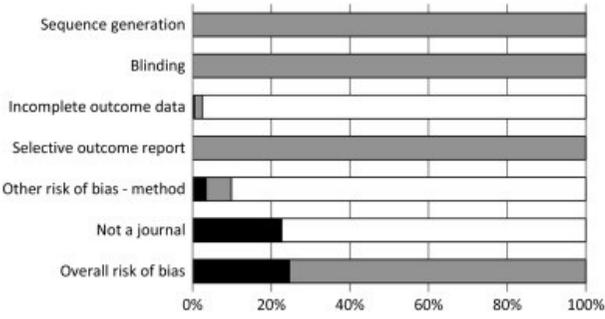
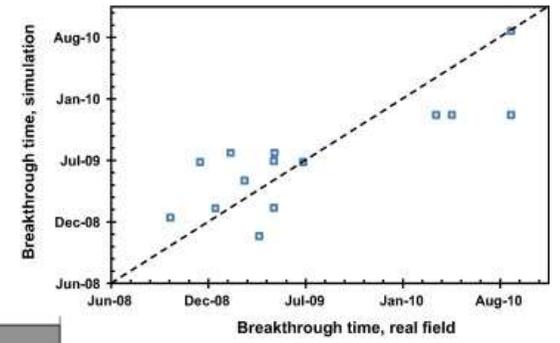
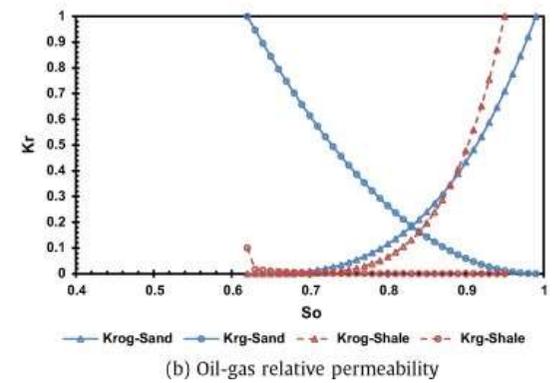
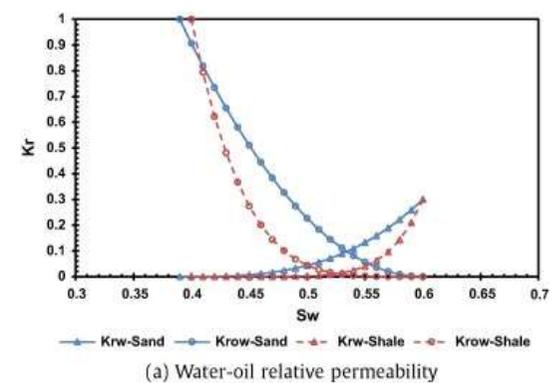
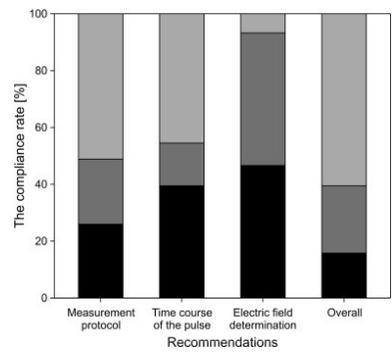
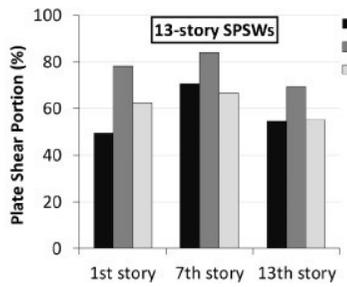
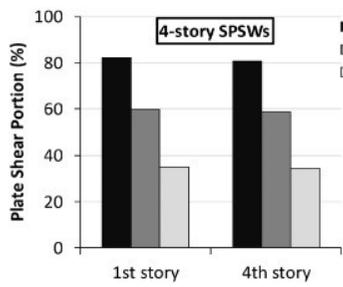
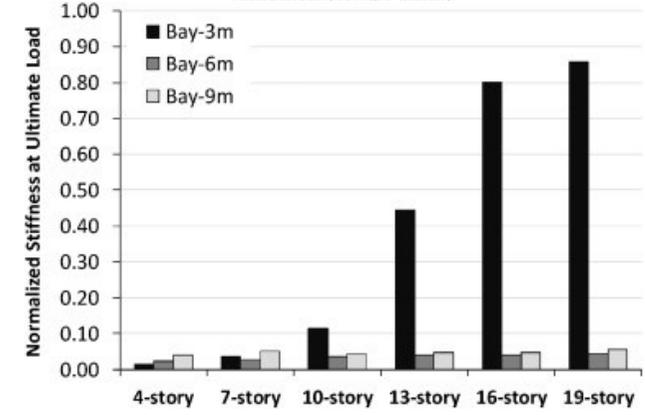
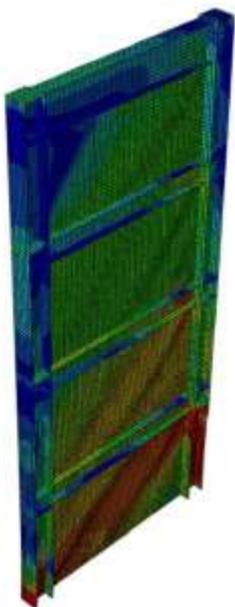
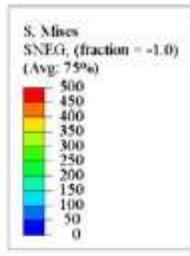
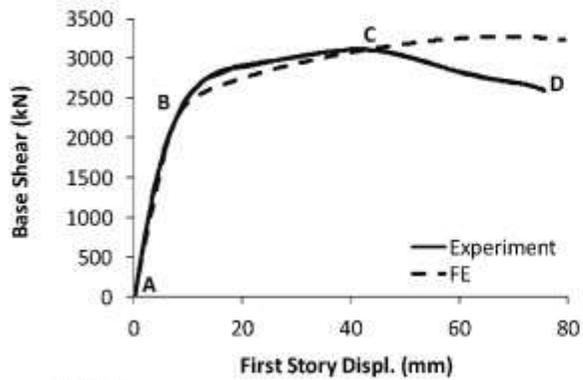
	0 wt.% CNC		5 wt.% CNC		10 wt.% CNC	
	1-step	2-step	1-step	2-step	1-step	2-step
First Heat	48.6 ± 5.9	46.7 ± 0.7	46.1 ± 3.4	45.9 ± 3.5	50.6 ± 2.4	49.2 ± 1.8
Second heat	63.0 ± 1.8	60.6 ± 4.2	63.6 ± 1.5	62.0 ± 5.4	69.8 ± 1.1	61.9 ± 5.5

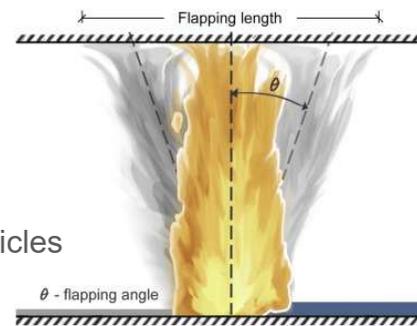
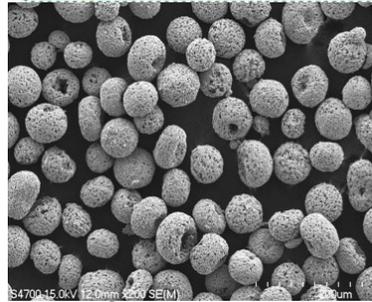
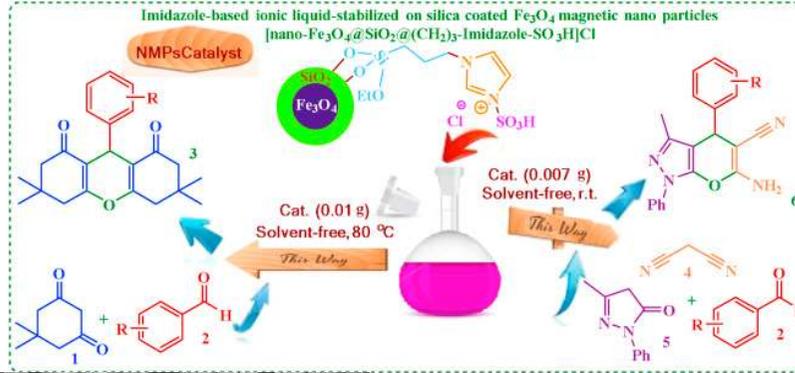
Table 1. The solubility of GO and rGO in a range of solvents by bath sonication

Solvent	GO solubility/ $\mu\text{g ml}^{-1}$	rGO solubility/ $\mu\text{g ml}^{-1}$
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

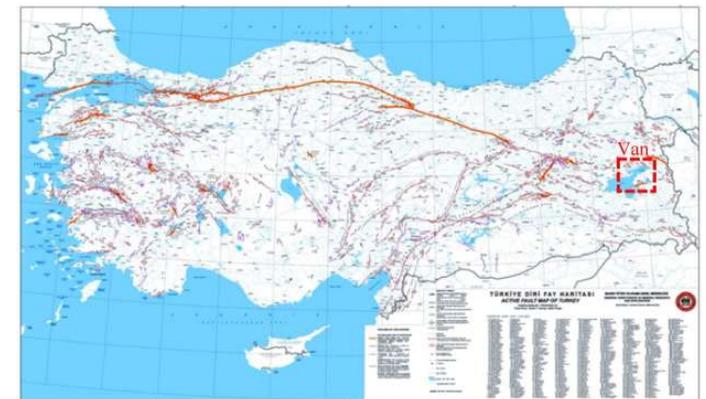
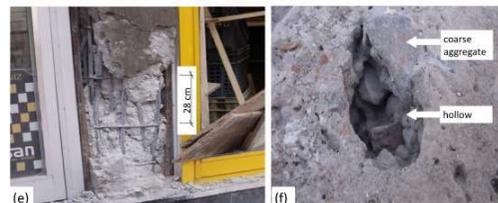
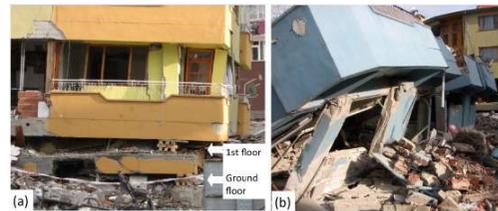
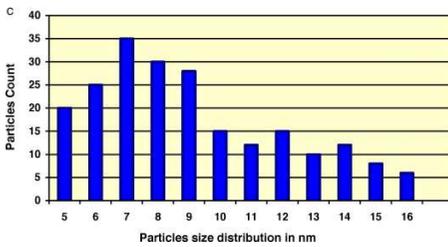
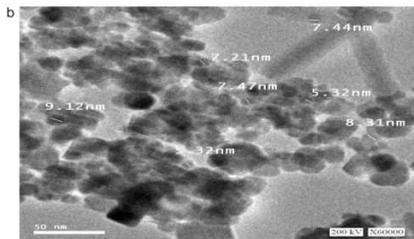
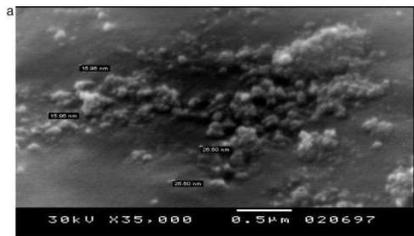
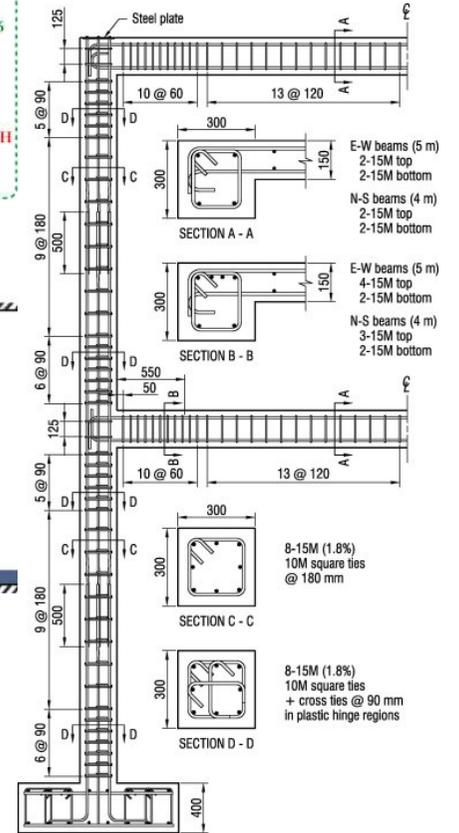
Table 3. Results of pull-out tests

Groups	Test no.	k_t (kN/mm)				d_p (mm)	d_u (mm)	Failure mode
		T_u (kN)	Test	Eq. (1)				
ST1	1	111.8	212.4	844.3	3.56	3.89	CF	
	2	98.7	170.4					
	3	115.5	363.0					
	Mean	108.7	248.60					2.21
ST2	1	154.6	276.1	400.0	10.17	15.18	SF	
	2	174.8	179.3					
	3	159.6	225.6					
	Mean	163.0	227.00					10.46
ST3	1	168.8	192.7	262.0	12.57	16.56	SF	
	2	172.2	215.7					
	3	172.8	193.6					
	Mean	171.3	200.67					13.16
ST4	1	171.9	195.2	194.8	18.97	24.80	SF	
	2	159.3	281.3					
	3	164.6	175.0					
	Mean	165.3	217.17					15.81





Appearance of the porous Mo particles with particle size of $58 \pm 8 \mu\text{m}$.





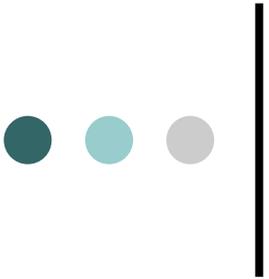
7. Discutii

- 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

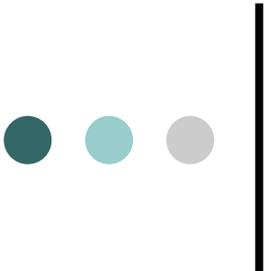
- In computer science, your preference should be for conference publication:
 - Conferences have higher status. In part this is a historical artifact of the field of computer science, but it is self-perpetuating since that makes the best researchers want to send their papers to conferences rather than 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

L^AT_EX

- Este un sistem de pregătire a textelor pentru tipărire
- A fost dezvoltat de Donald Knuth, în anul 1977 (Tex)
- Leslie Lamport – L^AT_EX: a extins setul standard de macroinstrucțiuni, a redefinit o parte din instrucțiunile lui Knuth.
- Este utilizat cu precădere în editarea documentelor din domeniul științific
- În prezent este solicitat la redactarea articolelor pentru reviste și conferințe științifice
- Mod de lucru:
 - Documentul este pregătit în forma text, iar pentru asta poate fi folosit orice editor de text (ex. Notepad)
 - Sursa text este apoi compilată pentru a obține documentul într-un format intermediar - DVI (dvi = device independent file)
 - Documentul este apoi tipărit sau convertit în 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



Exemplu

```

\documentclass[12pt]{article}
\title{\LaTeX}
\date{}
\begin{document}
\maketitle
\LaTeX{} este un sistem de pregătire a textului pentru
programul de tipuire \TeX{}. Acesta oferă posibilitatea programării
caracteristicilor necesare tipăririi și facilitează automatizarea
sarcinilor recurente în procesul de culegere a textului, inclusiv
numerotarea, tabele și figuri, referințe încrucișate,
bibliografie, etc.
\LaTeX{} a fost scris în 1984 de Leslie Lamport și a devenit metoda
dominantă pentru utilizarea \TeX, astăzi puține persoane mai scriu
direct în \TeX.
Versiunea curentă este \LaTeXe.
\newline
% Acesta este un comentariu, nu este vizibil în varianta pentru ecran.
% Următoarele demonstrează puterea tipăririi 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 și facilitează automatizarea sarcinilor recurente în procesul de culegere a textului, inclusiv numerotarea, tabele și figuri, referințe încrucișate, bibliografie, etc. LaTeX a fost scris în 1984 de Leslie Lamport și a devenit metoda dominantă pentru utilizarea TeX, astăzi puține persoane mai scriu direct în TeX. Versiunea curentă este LaTeX 2_ε.

$$E = mc^2 \tag{1}$$

$$m = \frac{m_0}{\sqrt{1 - \frac{v^2}{c^2}}} \tag{2}$$

Caracter	Cod LaTeX	Ieșire 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