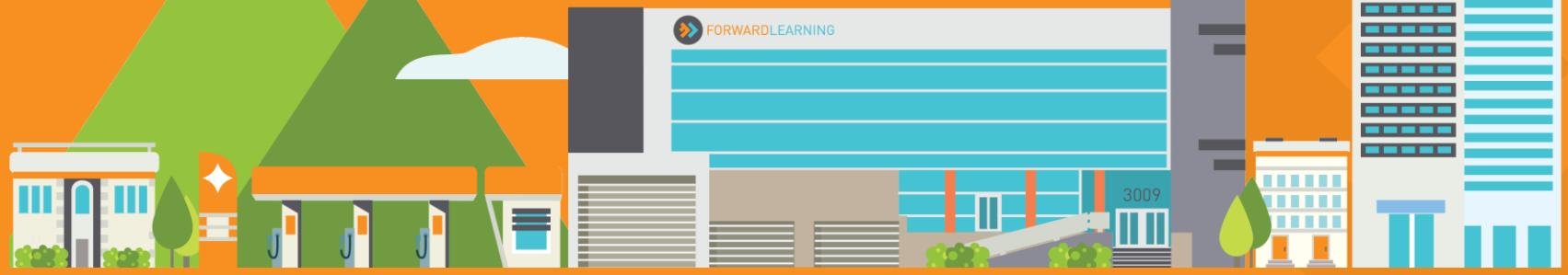


Creación de Póster en PowerPoint

2019

Sandra I. Madera, Ed. D.



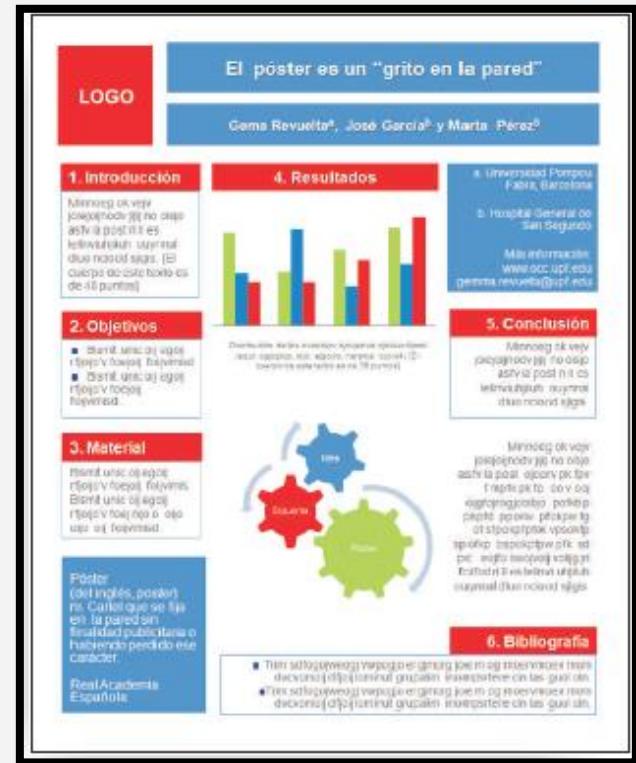
OBJETIVOS

- Explicar qué es un póster y cómo es su formato.
- Diseñar un póster para la presentación de una investigación científica.



INTRODUCCIÓN

- El póster científico es un resumen gráfico de un trabajo, que se utiliza para dar a conocer una investigación.
- Es un formato que se puede ver, leer y comentar.
- Es una alternativa para la comunicación oral.



EL PÓSTER

Captar la atención

Personalizar el
trabajo del
investigador

Finalidad

Comunicar
información

Interaccionar con
la audiencia



CARACTERÍSTICA DE UN PÓSTER



DISEÑO Y ESTRUCTURA

Vertical

Abstract

- The increasing demand on high data rates in communication system requires higher bandwidth. In order to achieve this requirement, it has been necessary to work at higher frequencies. That is why THz, the part of the electromagnetic spectrum between 100 GHz and 10 THz, is becoming more technologically relevant.
- In order to develop components that are able to work at such high frequency, electronic and optoelectronic have been merged for converging in the implementation of a THz wireless communication system.

Background

- THz communication systems include three main approaches:
 - Ultra high-speed cellular networks.
 - Communication in THz band can provide Terabit-per-second links in next generation small cells for ultra-high definition multimedia contents.
 - Wireless short range interconnection among devices. With THz band communication, Tbps links among devices in close proximity can be achieved.
 - Secure wireless communication for military and defense applications. This technology can be used to limit the eavesdropping probability and create secure communication channels.

Method

- Transmitter is based on photonic technologies
- Receiver is based on electronic one. Concretely on Sub-harmonic high bandwidth detector (SHD).
- Local oscillator sub-system is based on photonic generator.

Results and Conclusions

Fig. 1: Schematic of the overall THz wireless communication system.

Fig. 2: Antenna radiation pattern

Fig. 3: Selectivity of the sub-harmonic receiver

Fig. 4: BER of the link for different data rates

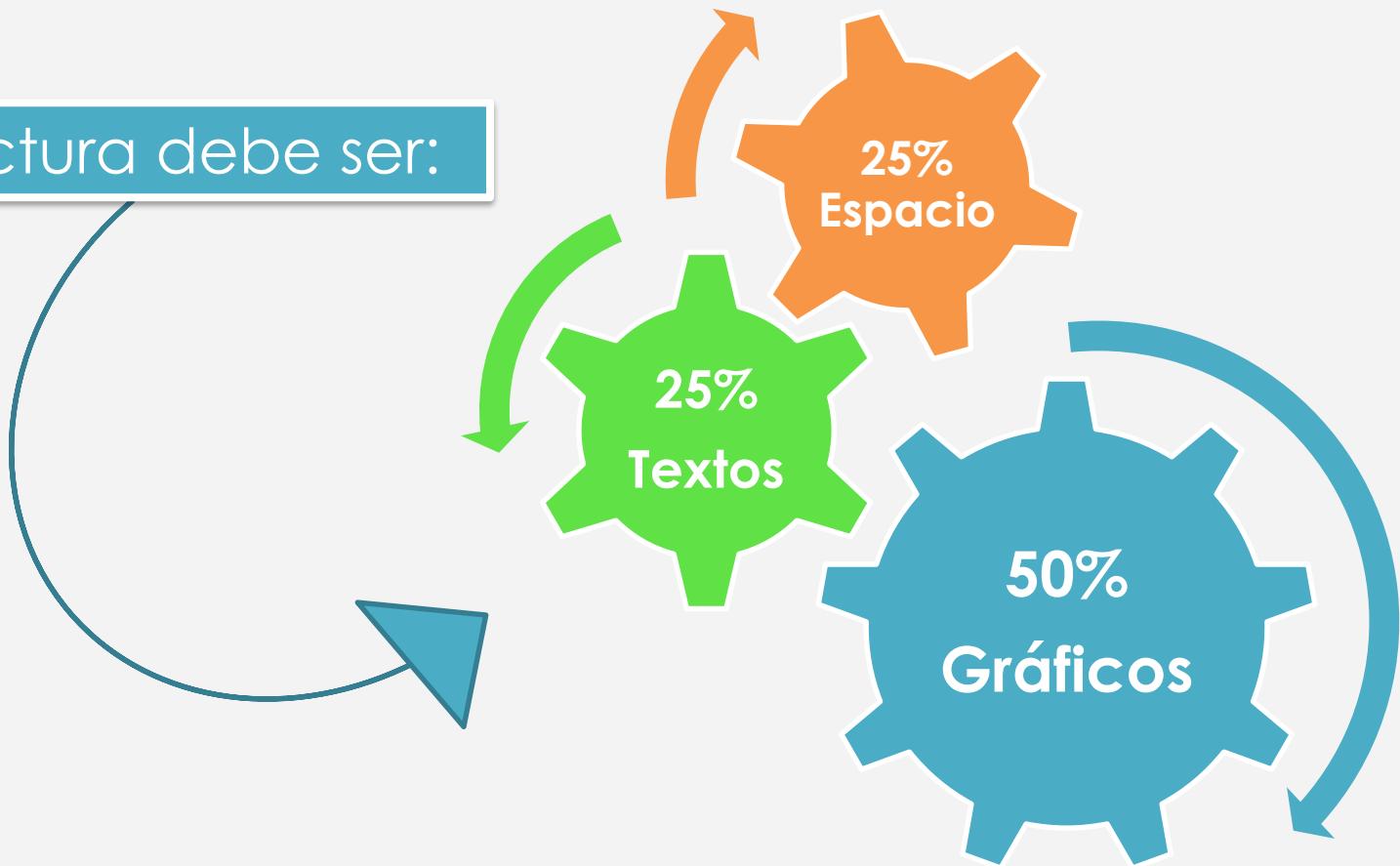
References

- A. Hita, G. Sos's wireless link using InP HEMT Mixers for generating 120 GHz band millimeter wave signal. *IEEE Trans. Microwave Theory and Techniques*, Vol. 56, No. 12, December 2008.
- C. R. Frazee, A. Hita, G. Sos's wireless system. *Electronic Letter*, 44, 213-214, (2008).
- Federici, J. Moeller, THz Wireless Communication: 2.5 Gbit/s error-free transmission at 625 GHz using a Nanowire-based mmW THz Source. *XOIII URSI* August (2011).
- Hu Song. G. Sos's wireless data transmission at 250 GHz. *Electronic Letter* 45 (2011)

Horizontal

PROPORCIONES DEL PÓSTER

La estructura debe ser:



ASPECTOS GRÁFICOS

- Colores de fondo deben ser claros, y lo fuertes sobre el fondo

Colores
2 - 3
tonos

- En negritas el título y los subtítulo: Arial, Verdana o Time.
- Tamaños (12)

Letras
mayúsculas
y
minúsculas

- Debe ser en forma diagonal

Líneas
visuales
de fuerza

- De buen tamaño y resolución

Imágenes
150 o más
dpi



DISEÑO

Colores

- Combinación adecuada entre imágenes, gráficos y letras

Elementos

- Debe haber una distribución adecuada
- Uso de cajas para redactar los textos

Proporciones

- Regla de aurea
- División del papel

Cantidad de palabras

- No más de 800 palabras

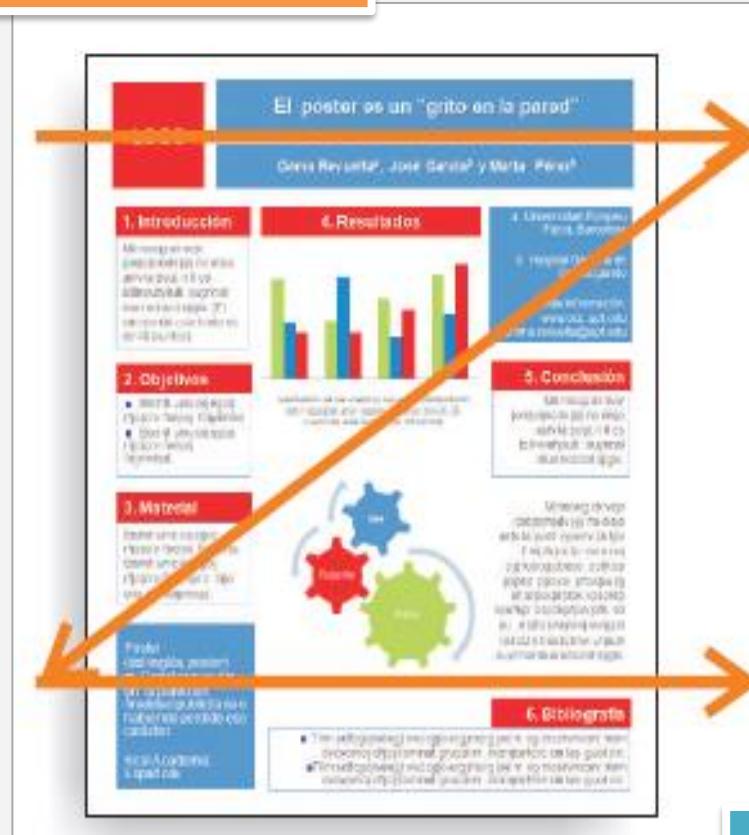
Impacto visual

- Derecho y superior tienen más impacto



ARQUITECTURA DEL PÓSTER

Recorrido en Forma de Z



Proporción Áurea



FORWARDLEARNING

ESTRUCTURA DEL PÓSTER

- Título
- Autores y Fechas
- Introducción
- Metodología
- Resultados
- Diseño
- Conclusión
- Bibliografía



LETRA- TAMAÑO Y CANTIDAD

Sección	Tamaño de la letra (puntos)	Cantidad de palabras
Título	70 -54	(2 líneas o menos)
Autor	30	
Introducción, hipótesis, objetivos	48-40	200
Metodología (Materiales/Método)	48-40	200
Resultados	48-40	200
Conclusión	48-40	200 o menos
Referencias	48-40	

Los textos, el tamaño de la letra es de **28 puntos**.

Encabezamientos de los textos : más de 40 puntos



FORWARD LEARNING

SUGERENCIAS

- ❑ Mantener equilibrio entre el contenido y la presentación.
- ❑ Leer la información a una distancia de 2 a 6 pies.
- ❑ La información debe aparecer en el sentido normal de la lectura: de izquierda a derecho y de arriba hacia abajo.
- ❑ Disponer la información en columnas.
- ❑ Sustituir textos por imágenes.



VENTAJAS DEL USO DEL PÓSTER

- Transmite las ideas centrales de un trabajo (información) de manera clara y rápida.
- Permite la retención de la información por parte del lector, con mayor potencia que la simple transmisión oral.
- Le permite al lector dedicarle el tiempo que requiera, según sus capacidades e intereses.
- Se pueden utilizar herramientas tecnológicas para su preparación.



EJEMPLO

El color del título del póster y de los títulos de las secciones no tiene contraste con el fondo y no se lee bien

El fondo del póster no tiene buena resolución, aparece pixelado y distrae

Las secciones están desordenadas y puestas unas encima de otras

No queda claro si este destacado pertenece a Material y métodos o a Resultados

Es imposible leer la letra blanca sobre este fondo claro

No figura el contacto de la autora del póster

El gráfico no se entiende porque hay números por encima y por debajo

EJEMPLO

**El título es claro y resume la conclusión del trabajo.
No es demasiado largo y se lee claramente**

Buen contraste de colores. Se puede leer claramente a 2 m de distancia

Las secciones están bien ordenadas y claramente diferenciadas entre sí.

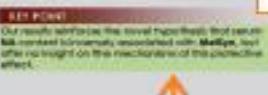
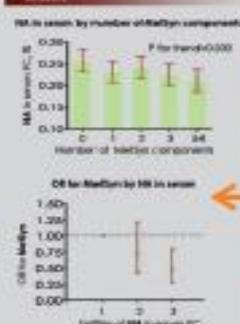
La tabla es clara y no extensa. Se puede leer claramente. Sería mejor no marcar la parrilla. La leyenda permite saber qué valores se presentan

No figura el contacto del autor del póster. Tampoco encontramos referencias ni agradecimientos que, pese a ser opcionales, son una buena herramienta para que los lectores puedan ampliar la información.

Los márgenes del póster y el interlineado invitan a leer el póster por niveles sobre cargado

Los gráficos resumen los resultados y contienen la información necesaria para ser entendidos. El fondo es el del póster, por lo que quedan bien integrados en el póster y no estresan visualmente su lectura.

Los objetivos y la conclusión son breves, resaltan la información importante y están destacados en la estructura del póster.





IPRG2009 Study: Testing for Differences Between Complex Samples in Proteomics Datasets

Brian C. Seal¹, David L. Tabb², Jayson A. Falkner³, Jeffery A. Kowalewski⁴, Karen Meyer-Jurisic⁵, Lehman Martens⁶, Manor Ashkenazi⁷, Paul A. Rudnick⁸, Sean L. Seymour⁹, William S. Lane¹⁰, Proteome Software, Portland, OR; Vanderbilt University Medical Center Hospital, TN; University of Michigan, Ann Arbor; Proteome Institute of Miami Health, Bethesda, MD; University of Colorado, Boulder, CO; European Bioinformatics Institute, Cambridge, UK; Dana-Farber Cancer Institute, Boston, MA; National Institute of Standards in Technology, Gaithersburg, MD; Applied Biosystems, Foster City, CA; Harvard University, Cambridge, MA

Abstract

Determining significant differences between mass spectrometry datasets from biological samples is one of the major challenges for proteomic informatics. Accurate and reproducible protein quantification in complex samples is the focus of biological and technical variability that has long been a critical goal for proteomics. This study to assess difference testing in a real-life dataset that provides a detailed look at how such a task can be approached was designed to report the results of a competition among proteomics experts to determine the results of a collaborative study focusing on the determination of significantly different proteins between two complex samples. Datasets consisting of four technical replicates of each sample were provided to volunteer participants and their ability to evaluate quantitative differences was tested. It requires knowledge of the underlying theory and metrics of various statistical methods to determine whether a particular technique is necessary, and if a computer software must be supported to achieve improved results. Results and survey instruments were used to measure the present status of the field and its provider's likelihood for difference testing in complex datasets.

Study Goals

Primary goal: Evaluate the effectiveness of current protein differentiation tools for mass spectrometry

- Any spectrum-counting methods, sufficient to find difference between complex samples or are intensity-based quantification methods required?
- Can participants accurately determine the confidence in the differences in the problems they solved?

Secondary goal: Establish a benchmark reference

- Create a set of reference to test their own methods
- Provide a frame of reference for future conference discussions

Sample Distribution Methods

Only the red and green data sets were distributed to participants. Participants had to determine which of the three methods (intensity-based, spectrum counting, and RPD) were best suited for the red and green samples. The samples were distributed after a formalized QC and database assessment on 24/3/2008. The database was modified to contain twelve serum albums, complete complement and various membrane secretions as controls. Participants were required to provide their results to an email address prior to put in a control survey. 27 returned results from 33 individuals were accepted in a cleaner format.

Acknowledgments

We would like to thank our center and other members involved for their help in creating the IPRG2009 study. Special thanks to Dr. Brian C. Seal for helping to design the study and Dr. Karen Meyer-Jurisic for helping to coordinate the study. We also want to thank the Protein Software Center for funding the study.



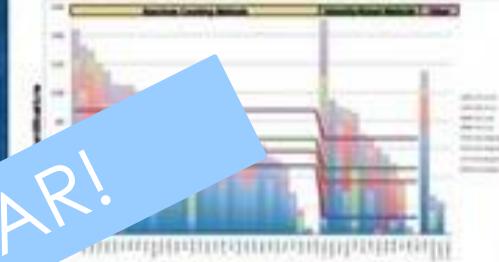
Figure 1: Pseudo-RPD scores by method

Creating the Samples

100 µg of total protein was added onto a sheet of 8x10 gel lanes and mixed with Proteome software that:

- Has four lanes with controls and designated "red" while the last four lanes were designated "green".
- A region of proteins between 37 kDa and 65 kDa was removed from the lower region of the gel and designated "gold".
- A region of proteins at positions 27 kDa and 47 kDa was isolated from the top region and designated "silver".
- Proteins were reduced, alkylated and dried overnight.
- Proteins were mixed with buffer solution (about three times the volume of 2 µg of total protein + 10 µl of buffer solution).
- 10 µl of solution of red and green was applied to each lane and protein was denatured with ac 200 µl of water.

Figure 2: Results Overview



Participants were grouped based on the number of correct answers (percentiles) in a specific error rate. In Figure 2, correct distributions of four error rates (10%, 25%, 50% and 75%) are depicted.

Participants using other spectrum counting or intensity-based methods were able to exceed all of the others and these included Dr. Brian C. Seal, Dr. Karen Meyer-Jurisic, Dr. Jayson A. Falkner, Dr. Jeffery A. Kowalewski, Dr. Paul A. Rudnick, Dr. Sean L. Seymour, Dr. William S. Lane, and Dr. Lehman Martens while, interestingly, the best running performance at 20% used an intensity-based method. Although it was possible to exceed using either method, the spectrum counting ones did 50% to 60% better than the intensity-based ones. Interestingly, the spectrum counting methods using thresholding methods may have been more effective due to their inherent in the initial problem, suggesting that there is room for the field to grow in this area. No spectrum counting is a simpler method with fewer

parameters, average error tend to be lower.

Other analysis studies, more axes and algorithms a related field to that "Report" IPRG2009 did not necessarily perform better than other competitions. Data from the surveys clearly shows that proteome informatics experience does not correlate with success in this study, but experience with mass spec differentiation does ($p=0.001$).

Participants were instructed to specify a "threshold" value at which they would consider publishing results. The actual false discovery rate for all submitted problems is provided in Figure 3. Although many participants specified values with low error rates (10%, 25%, 50%), it is clear that some participants used very high error rates. These participants using thresholding methods may have been more effective due to their inherent in the initial problem, suggesting that there is room for the field to grow in this area. No spectrum counting is a simpler method with fewer

Conclusions

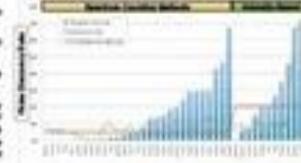
Participants succeeded with both spectrum counting and intensity-based methods.

- Error accuracy is measured in success with intensity-based methods.
- Intensity estimation of error rates are off for many participants.

Many of the protein differences in this study were much larger than in any literature described experiments. Further work is necessary to show if either method is capable of identifying changes in real world studies.

The IPRG has produced a publicly available dataset useful to the field for testing.

Figure 3: Error Rate for "Bipartite" Problems



For more information, please visit www.abrf.org/iprg09

IA TRABAJAR!



FORWARD LEARNING

Science Project Title

Your name | Teacher's name | School



Problem / Question

Type your question here (statement of the problem)

Hypothesis

- Type your answer / solution here
- Write hypothesis before you begin the experiment
- This should be your best educated guess based on your research

Project Overview

Type a brief overview or summary of your project. (Click the Bullets button on the Home tab to remove the bullets.)

Variables / Research

Materials

Materials (detailed list)	Quantity (be specific)
Item	Amount

Procedure



Describe this step in your experiment



Describe this step in your experiment



Describe this step in your experiment



Describe this step in your experiment

Data / Observations

- Observation 1
- Observation 2
- Observation 3

Results

Chart Title



- Include results based on your experiments
- Result 2
- Result 3

Conclusion

- Brief summary of what you discovered based on results
- Indicate and explain whether or not the data supports your hypothesis

Works Cited

- Include print and electronic sources in alphabetical order

PLANTILLAS

- ❑ Ecourban
<http://www.ecourban.org/tareas/investigacion/postercientifico/index.html>
- ❑ NC State University
<http://www.ncsu.edu/project/posters/examples/>
- ❑ Swarthmore College
<http://www.swarthmore.edu/NatSci/cpurrin1/postertemplate.ppt>
- ❑ Póster de Zoología (Autor: Julián Francisco González Mangas)
<http://www.educa.madrid.org/binary/165/poster.jpg>
- ❑ Póster de Geología (Autor: R. Caparrós y otros)
<http://www.educa.madrid.org/binary/547/poster praxis.pdf>
- ❑ La mandíbula y los dientes (Autor: El Mundo- Láminas de "Aula")
<http://aula.elmundo.es/aula/laminas/lamina1109845145.pdf>



REFERENCIAS

- Revuelta, G. Talleres sobre elaboración de pósters científicos. Universitat Pompeia Fabra, Nexus Médica Editores, S.L. Badalona (Barcelona).
- http://www.uhu.es/vic.investigacion/ucc/documents/actividades/EGuardiola_poster_cientifico.pdf

