

PROBLEM

The purpose of this document is to provide a L^AT_EX template for preparing a poster at Fed-
CSIS conference.

1. Use a zero before decimal points: “0.25,” not “.25.”
2. Remember to check spelling

CONTRIBUTIONS

You may find useful an excellent *Advice on de-
signing scientific posters* [1]:

- The number one mistake is to make your poster too long
- Avoid titles with colons
- The width of text boxes should be approx-
imately 40 characters
- Whenever possible, use lists of sentences
rather than blocks of text

METHOD

Abstract is placed in the first paragraph. It is
formatted with the Abstract style. The length
of the abstract should not exceed 150 words.
Do not include abstract in your poster!

RESULTS

2011	Internet Explorer	Firefox	Chrome	Safari	Opera
January	26.6%	42.8%	23.8%	4.0%	2.5%
February	26.5%	42.4%	24.1%	4.1%	2.5%
March	25.8%	42.2%	25.0%	4.0%	2.5%
April	24.3%	42.9%	25.6%	4.1%	2.6%
May	24.9%	42.4%	25.9%	4.0%	2.4%
June	23.2%	42.2%	27.9%	3.7%	2.4%
July	22.0%	42.0%	29.4%	3.6%	2.4%

The purpose of this paper is to compare differ-
ent approaches to the local arc problem. We con-
sider a phantom which consists of characteristic
function of two ellipses with semi-axes parallel
to coordinate axes. Both ellipses locate inside
the circle $\{|x| < 0.9\}$

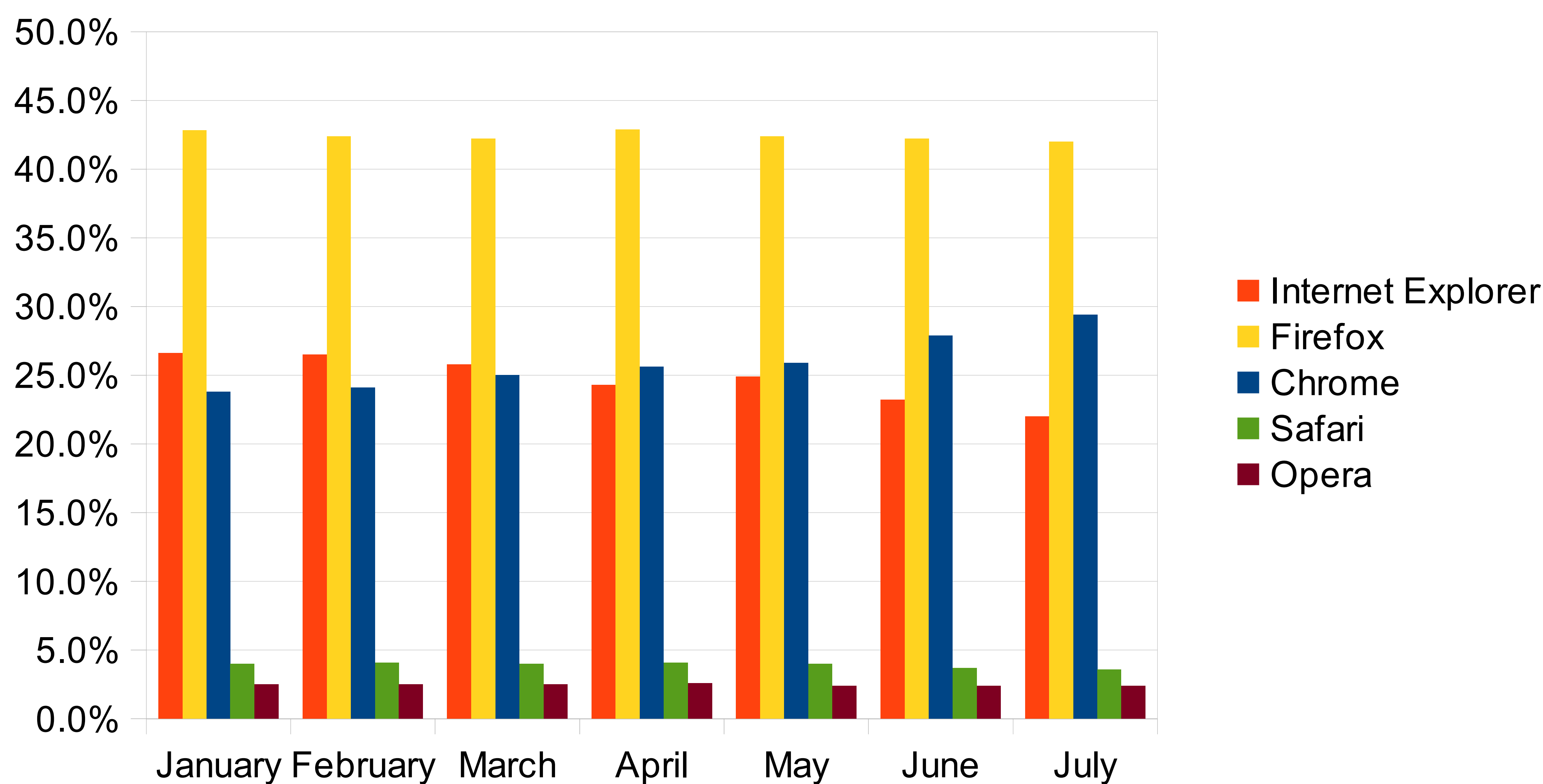
Theorem 1 (cf. [2]) *Let $f(x)$ and $g(y)$ be two func-*

*tions supported at H and B respectively. The follow-
ing relations are equivalent:*

$$f(x) = \frac{4x_2}{(1+x^2)^2} g\left(\frac{2x_2}{1+x^2}, \frac{1-x^2}{1+x^2}\right),$$

$$Rg(\omega, p) = \frac{1}{\sqrt{1-p^2}} Mf\left(\frac{\omega_1}{p+\omega_2}, \frac{\sqrt{1-p^2}}{|p+\omega_2|}\right).$$

We test each algorithm on noisy data. By noisy
data we mean the array G , each component of
which is summing up with a uniform random
number from $[-0.1, 0.1]$ times the length of $A_{k,l}$.
The inversion results characterizes stability of
the algorithm.



REFERENCES

[1] Colin Purrington Advice on designing scientific
posters <http://www.swarthmore.edu/NatSci/cpurri1/posteradvice.htm>

[2] A. Denisiuk. Integral geometry on the family of semi-
spheres *Fractional Calculus and Applied Analysis*, 2:42–
59, 1999.

A FUTURE DIRECTION

We will consider the procedure of data comple-
tion for the local arc problem. We will make use
of the theorem 1. Since the local arc problem

is equivalent to the limited angle problem for
Radon transform, consider the data completion
procedure for the last problem.