West University of Timișoara: A simple and modern Conference Poster Template

Universitatea de Vest din Timișoara

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Introduction

The **UVT Conference Poster Theme** is a modern theme based on `beamerposter` that uses the official UVT branding[1]. Some of its elements and styling are inspired by Gemini theme[2].

It comes with a few nifty features:

- Use of the official color scheme for UVT throughout.
- Customized block environments.
- Easy to extend and modify separate parts (header, fonts, etc).

Separate parts are available as e.g. `\usecolortheme{uvtposter}`!

To use it in you documents add something like the following

```
\documentclass[final]{beamer}
% 1. The theme supports different sizes, e.g. a0, a1, ...
% 2. It can also be viewed in "landscape" or "portrait" mode
\usetheme[size=a1,orientation=landscape]{uvtposter}

% 3. You can select other color schemes or box types
\usecolortheme{uvtposter}
```

More information is available in `template.tex`.

[a] `https://dci.uvt.ro/identitate-vizuala`
[b] `https://github.com/anishathalye/gemini/`

Colors and Fonts

This theme uses the *Myriad Pro* font. This is a clean *sans serif* font from Adobe that is recommended by the official UVT branding.

The theme has three standard colors:

- A nice **light blue** (`UVTLightBlue`).
- A bolder **dark blue** (`UVTDarkBlue`).
- An attention grabbing yellow (`UVTYellow`)!
- Variants `color!x` can also be used to darken or lighten them

These can be used for emphasizing text or for more obvious alerts. Standard **bold** and *italic* emphasis can of course also be used!

Lists, enumerations, and descriptions

Lists

- Itemize lists are nicely customized ...
  - All the way down ...
    - To the third level!

Enumerate

1. We can also enumerate!
2. Many things!
3. It's great!

Description

UVT And describe our university in exquisite detail, so that we can capture all its multiline greatness!

Blocks

We have various standard Beamer blocks styled in a pleasing fashion. You might have noticed their use for each of the "sections" up to now.

Block 1

Some block block: `\begin{block} ... \end{block}`.

Alert 1

Some alert block: `\begin{alertblock} ... \end{alertblock}`.

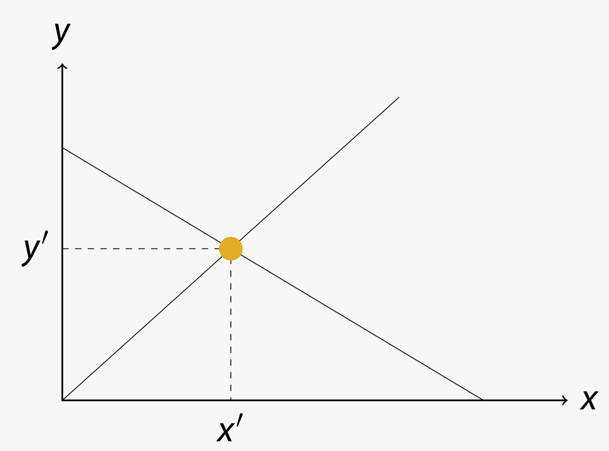
Example 1

Some example block: `\begin{exampleblock} ... \end{exampleblock}`.

You probably should not nest these as we just did here!

Figures

You can also add figures to each block.



A simple figure.

These should be used quite extensively to better make your point. This is a visual sort of medium after all!

Tables

Largest cities in the world (source: UN 2018 population estimates from Wikipedia)

City	Population
Tokyo	37,468,000
Delhi	28,514,000
Shanghai	25,582,000
São Paolo	21,650,000

Tables are also a good way to display data. Using the `booktabs` package should make your tables look very nice indeed!

Example: Infinite Primes

Imagine that there were only a limited number of prime numbers, and we could list them as $p_1, p_2, \ldots, p_n$. Now, consider the number formed by multiplying all these primes together and then adding one, that is,

$$N = p_1 \times p_2 \times \cdots \times p_n + 1.$$

If you try to divide this new number N by any of the primes on your list, you always get a remainder of 1. This means that none of the primes $p_1, p_2, \ldots, p_n$ can be a divisor of N. Since every number greater than 1 must have a prime factor, N must either be a prime itself or be divisible by a prime that was not in our original list.

This simple observation shows that no matter how many primes you start with, you can always construct a number that reveals at least one additional prime, proving that there are infinitely many prime numbers.

Example: Grönwall Inequality

Suppose you have a nonnegative function $u(t)$ that satisfies an inequality of the form

$$u(t) \le a + \int_{t_0}^{t} b(s)\, u(s)\, \mathrm{d}s,$$

where $a \ge 0$ is a constant and $b(t) \ge 0$ is a given function. The idea behind the inequality is that even though $u(t)$ might depend on its past values through the integral, its growth is controlled by the accumulation of the function $b(t)$.

To see how this control works, define an auxiliary function

$$v(t) = a + \int_{t_0}^{t} b(s)\, u(s)\, \mathrm{d}s.$$

Since $u(t) \le v(t)$, differentiate $v(t)$ with respect to t to obtain

$$v'(t) = b(t)\, u(t) \le b(t)\, v(t).$$

Dividing both sides by $v(t)$ (which is positive) gives

$$\frac{v'(t)}{v(t)} \le b(t).$$

Integrating this inequality from t_0 to t and exponentiating yields

$$v(t) \le v(t_0) \exp\left(\int_{t_0}^{t} b(s)\, \mathrm{d}s \right).$$

Since $v(t_0) = a$ and $u(t) \le v(t)$, we conclude that

$$u(t) \le a \exp\left(\int_{t_0}^{t} b(s)\, \mathrm{d}s \right).$$

This simple argument shows that if the function $u(t)$ satisfies the original integral inequality, then its value at any time t is bounded above by an exponential function determined by the integral of $b(t)$; this is precisely the statement of the integral Grönwall inequality.

References

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