



## Smoothing Techniques

Applied to seismic sources characterization and probabilistic seismic hazard analysis (PSHA)

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Master Presentation

## Motivation

- The Basic Problem That We Studied
- Previous Work

## Our Results/Contribution

- Main Results
- Basic Ideas for Proofs/Implementation

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# Make Titles Informative. Use Uppercase Letters. Long Titles are Split Automatically.

- ▶ Use itemize a lot.
- ▶ Use very short sentences or short phrases.

You can create overlays. . .

- ▶ using the pause command:
  - ▶ First item.

## Make Titles Informative.

You can create overlays. . .

- ▶ using the pause command:
  - ▶ First item.
  - ▶ Second item.
- ▶ using overlay specifications:
- ▶ using the general uncover command:

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## The Basic Problem That We Studied

- Main Results
- Basic Ideas for Proofs/Implementation

```
int main (void)
{
    std::vector<bool> is_prime (100, true);
    for (int i = 2; i < 100; i++)
        if (is_prime[i])
        {
            std::cout << i << " ";
            for (int j = i; j < 100;
                is_prime [j] = false, j+=i);
        }
    return 0;
}
```

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Note the use of `std::`.



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## Example

- ▶ 2 is prime (two divisors: 1 and 2).
- ▶ 3 is prime (two divisors: 1 and 3).
- ▶ 4 is not prime (three divisors: 1, 2, and 4).

*There is no largest prime number and, in addition,*

$$\int_{\Omega} \nabla u \cdot \nabla v = - \int_{\Omega} u \Delta v + \int_{\partial \Omega} u v n$$

1. Suppose  $p$  were the largest prime number.

4. Thus  $q + 1$  is also prime and greater than  $p$ .



## Theorem

*There is no largest prime number and, in addition,*

$$\int_{\Omega} \nabla u \cdot \nabla v = - \int_{\Omega} u \Delta v + \int_{\partial \Omega} u v n$$

## Proof.

1. Suppose  $p$  were the largest prime number.
2. Let  $q$  be the product of the first  $p$  numbers.
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The proof used *reductio ad absurdum*.

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- ▶ Outlook



A. Author.

*Handbook of Everything.*  
Some Press, 1990.



S. Someone.

On this and that.  
*Journal of This and That*, 2(1):50–100, 2000.