

# XLive: Integrating Sources with XQuery

Nicolas Travers

Nicolas.Travers@prism.uvsq.fr

## XQuery

### XQuery use-case : XMP 06

Full-untyped XQuery specification supported

```
<bib>{
  for $b in doc("http://bstore1.example.com/bib.xml")//book
  where count ($b/author) > 0
  return
    <book>
      {$b/title}
      {$b/author[position() <= 2]}
      {if (count ($b/author) > 2) then <et-al/> else ()}
    </book>
}</bib>
```

## Canonical XQuery

### Canonization rules

```
let $r_1 :=
  for $b in doc("http://bstore1.example.com/bib.xml")//book
  let $r_2 := for $a in $b/author
    where position ($a) <= 2
    return $a
  let $agg_1 := count ($b/author)
  where $agg_1 > 0
  return
    <book>
      {$b/title}
      {$r_2}
      {if ($agg_1 > 2) then <et-al/> else ()}
    </book>
return
<bib>{$r_1}</bib>
```

## Tree Graph View

### TGV : a model for XQuery

Tuyêt Trâm Dang Ngoc

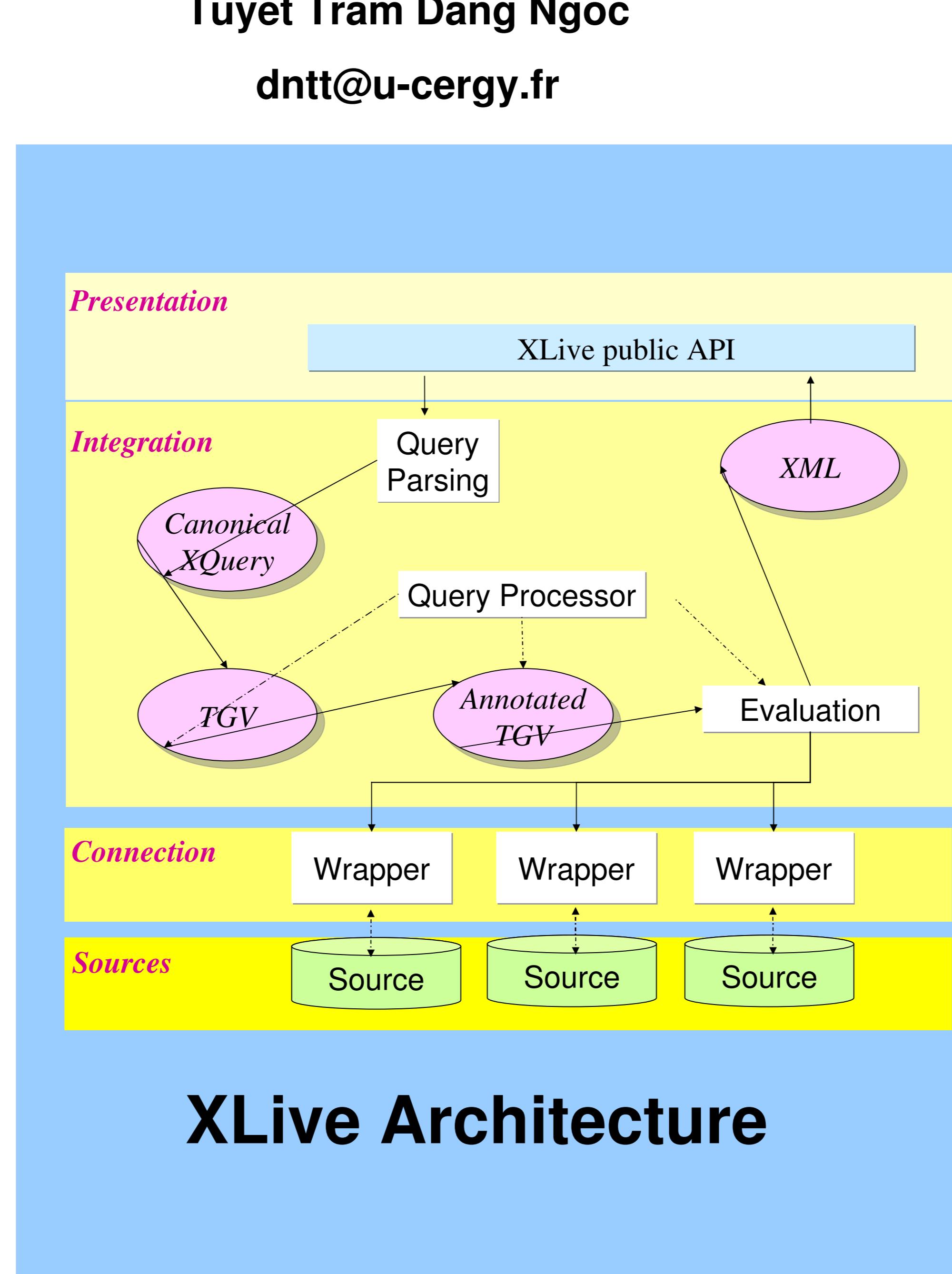
dntt@u-cergy.fr

Tianxiao Liu

Tianxiao.Liu@u-cergy.fr

## XML

```
<bib>
  <book>
    <title>TCP/IP Illustrated</title>
    <author><last>Stevens</last><first>W.</first></author>
  </book>
  <book>
    <title>Advanced Programming in the Unix environment</title>
    <author><last>Stevens</last><first>W.</first></author>
  </book>
  <book>
    <title>Data on the Web</title>
    <author><last>Abiteboul</last><first>Serge</first></author>
    <author><last>Buneman</last><first>Peter</first></author>
    <et-al>
  </book>
</bib>
```



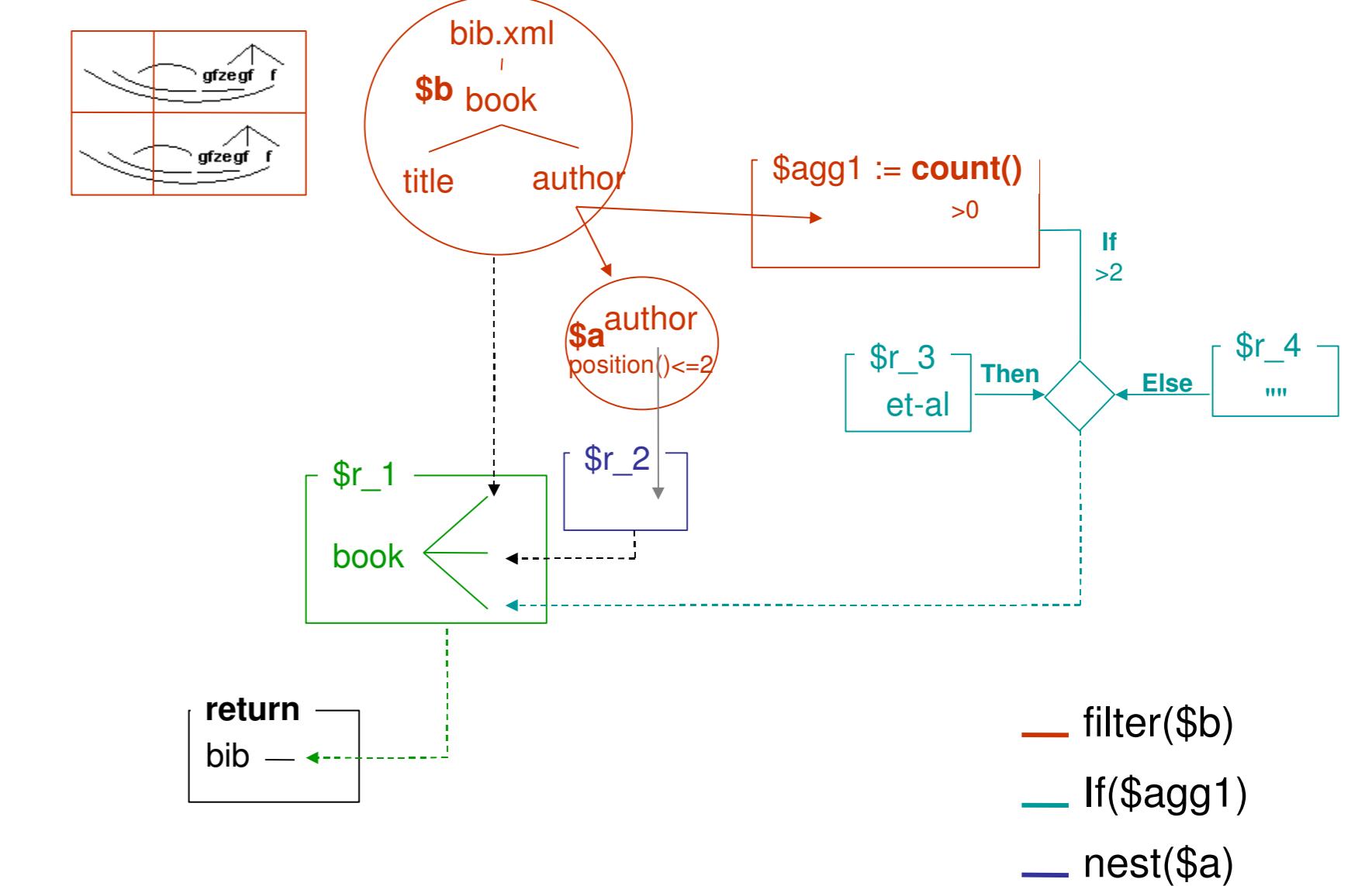
## Evaluated TGV

- Transformation rules for Evaluation
- Annotation for evaluation

## TGV Processor

### Extensible Optimizer :

- Generic cost model
- Search strategy
- Add new rules



## Annotated TGV

### An annotation view for each type

