

*Report on*  
**the 1st Confluence Competition**  
**(CoCo 2012)**

**Takahito Aoto (Tohoku University)**

# CoCo 2012

**Competition among confluence proving/disproving tools**

The event was held on yesterday.

**Main Track**

Prove a TRS is confluent or not

**Certification Demo**

Certify a (non-)confluence proof of a TRS

# Entrants

## Main Track

### ACP

Takahito Aoto (Tohoku University)

Yoshihito Toyama (Tohoku University)

### CSI

Harald Zankl (University of Innsbruck)

Bertram Felgenhauer (University of Innsbruck)

Aart Middeldorp (University of Innsbruck)

### Saigawa

Nao Hirokawa (JAIST)

Dominik Klein (JAIST)

## Certification Demo

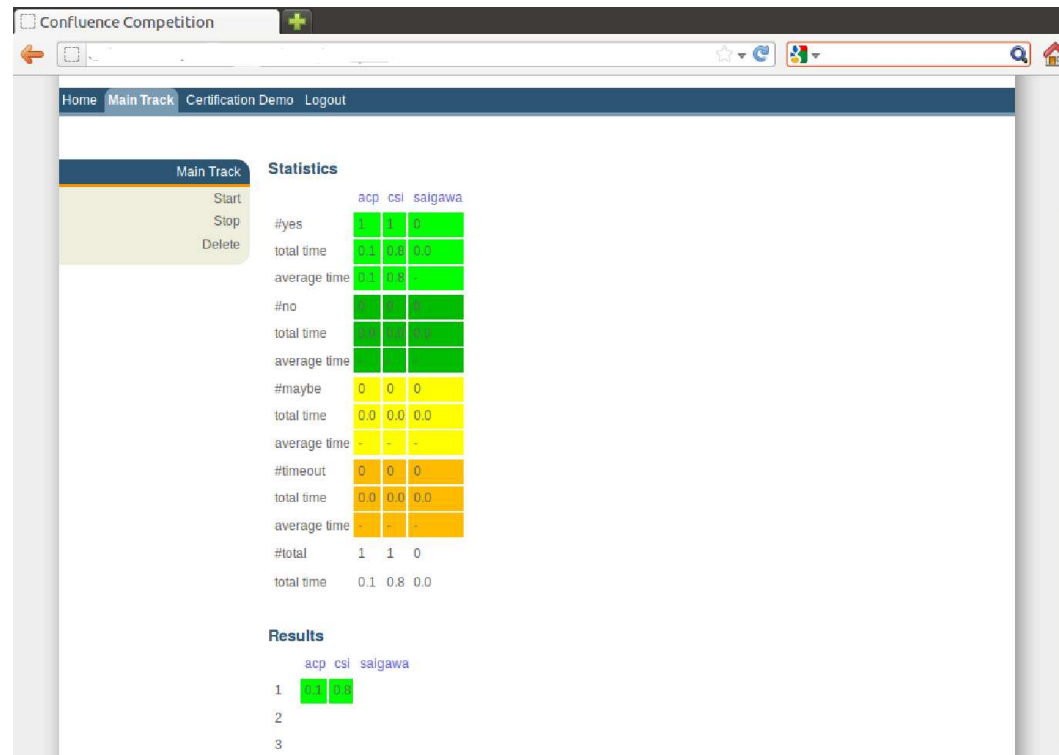
### CeTA

René Thiemann (University of Innsbruck)

One page sys. desc. appear in IWC 2012 proceedings.

# Live Competition

The competition took part in IWC 2012 and was performed in live.

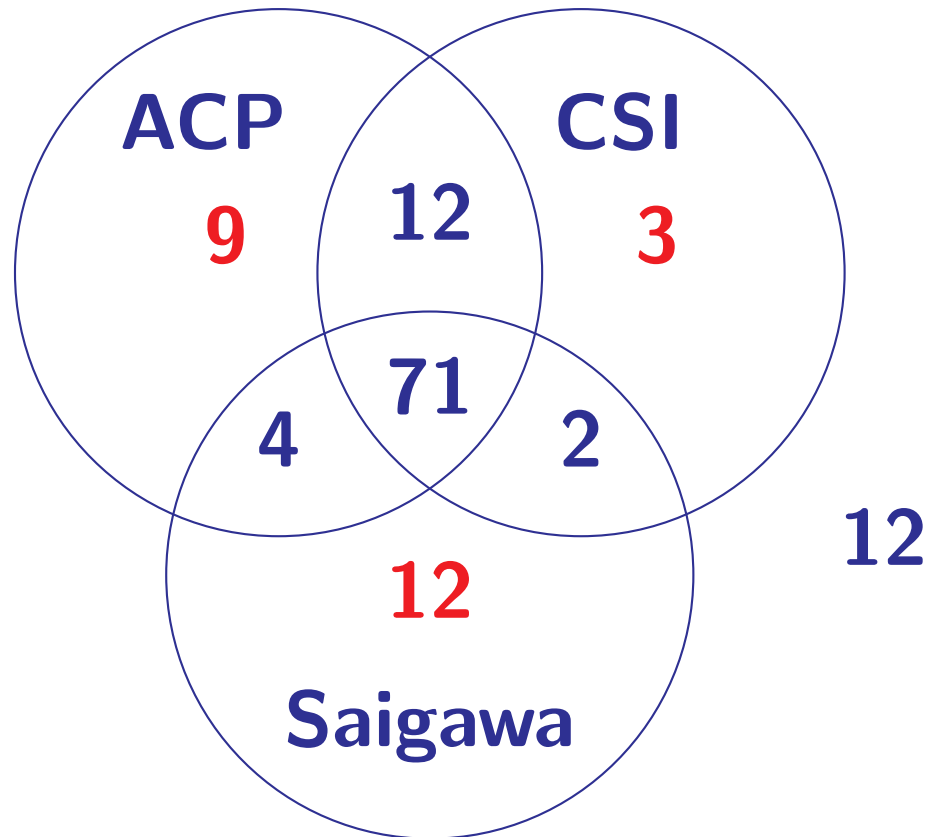


## Scores on the Main Track

|                | YES       | NO        | timeout   | score     |
|----------------|-----------|-----------|-----------|-----------|
| <b>ACP</b>     | <b>78</b> | <b>18</b> | <b>3</b>  | <b>96</b> |
| <b>CSI</b>     | <b>67</b> | <b>21</b> | <b>5</b>  | <b>88</b> |
| <b>Saigawa</b> | <b>71</b> | <b>18</b> | <b>12</b> | <b>89</b> |

- YES/NO should be followed by a proof argument which is understandable by human experts.
- 125 problems (almost) from literature are considered.
- Timeout of 60 seconds for each problem

# Different Techniques, Different Results



Complete results are available at

<http://coco.nue.riec.tohoku.ac.jp/2012/>

# CoCo for the Next Year

## CoCo Webpage

<http://coco.nue.riec.tohoku.ac.jp/>

## CoCo Mailing List

[coco@jaist.ac.jp](mailto:coco@jaist.ac.jp)

**Submissions of confluence problems are welcome**

<http://coco.nue.riec.tohoku.ac.jp/problems/>

**Please consider participation of your tool(s) to  
CoCo 2013!**