OpenGeoProver Output for conjecture "geothm_zadatak"

Wu's method used

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1 Invoking the theorem prover

The used proving method is Wu's method.
The input system is:

$$
\begin{aligned}
p_1 &= 2x_1 - \\
p_2 &= 2x_2 - \\
p_3 &= -x_4x_1 - x_3x_2 + x_2x_1 \\
p_4 &= x_6x_5x_2 + x_6x_5x_1 - x_5x_2x_1 - x_4x_1 - x_3x_2 + x_2x_1 \\
p_5 &= x_7x_5x_2 + x_7x_5x_1 - x_5x_2x_1 - x_4x_1 - x_3x_2 + x_2x_1 \\
p_6 &= x_8x_5x_2 + x_8x_5x_1 - x_5x_2 - x_5x_1
\end{aligned}
$$

1.1 Triangulation, step 1

Choosing variable: Trying the variable with index 6.

Variable x_6 selected: The number of polynomials with this variable, with indexes from 1 to 6, is 1.

Single polynomial with chosen variable: Chosen polynomial is p_4. No reduction needed.

The triangular system has not been changed.

1.2 Triangulation, step 2

Choosing variable: Trying the variable with index 5.

Variable x_5 selected: The number of polynomials with this variable, with indexes from 1 to 5, is 2.

Minimal degrees: 2 polynomial(s) with degree 1.

Polynomial with linear degree: Removing variable x_5 from all other polynomials by reducing them with polynomial p_4 from previous step.

Finished a triangulation step, the current system is:

$$\begin{aligned}
p_1 &= 2x_1 - \\
p_2 &= 2x_2 - \\
p_3 &= -x_4x_1 - x_3x_2 + x_2x_1 \\
p_4 &= x_8x_4x_2x_1 + x_8x_4x_1^2 + x_8x_3x_2^2 + x_8x_3x_2x_1 \\
&\quad -x_8x_2^2x_1 - x_8x_2x_1^2 - x_4x_2x_1 - x_4x_1^2 - x_3x_2^2 \\
&\quad -x_3x_2x_1 + x_2^2x_1 + x_2x_1^2 \\
p_5 &= x_7x_5x_2 + x_7x_5x_1 - x_5x_2x_1 - x_4x_1 - x_3x_2 + x_2x_1 \\
p_6 &= x_6x_5x_2 + x_6x_5x_1 - x_5x_2x_1 - x_4x_1 - x_3x_2 + x_2x_1
\end{aligned}$$

1.3 Triangulation, step 3

Choosing variable: Trying the variable with index 4.

Variable x_4 selected: The number of polynomials with this variable, with indexes from 1 to 4, is 2.

Minimal degrees: 2 polynomial(s) with degree 1.

Polynomial with linear degree: Removing variable x_4 from all other polynomials by reducing them with polynomial p_3 from previous step.

Finished a triangulation step, the current system is:

$$\begin{aligned}
p_1 &= 2x_1 - \\
p_2 &= 2x_2 - \\
p_3 &= 0 \\
p_4 &= -x_4x_1 - x_3x_2 + x_2x_1 \\
p_5 &= x_7x_5x_2 + x_7x_5x_1 - x_5x_2x_1 - x_4x_1 - x_3x_2 + x_2x_1 \\
p_6 &= x_6x_5x_2 + x_6x_5x_1 - x_5x_2x_1 - x_4x_1 - x_3x_2 + x_2x_1
\end{aligned}$$

1.4 Triangulation, step 4

Choosing variable: Trying the variable with index 3.

Error: Variable with index 3 not found in polynomial system.

2 Prover results

Status: Proving failed - general error occurred.