Bunnies, Stars And SuperForms

Vandita Patel
Joint work with Mike Bennett, Samir Siksek and Samuele Anni

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BİLECİK ŞEYH EDEBALİ ÜNİ
ULUSLARARASI ÇA

BİLECİK Şeyh Edebali Üniversitesi Diophantine Denklemlerde Modüler Metotlar üzerine Temel Çalıştay isimli uluslararası bir çalıştay gerçekleştirdi.

Bilecik Şeyh Edebali Üniversitesi sahipliğinde, Fen Edebiyat Fakültesi Matematik bölümünün üstlendiği saat 09.30'da üniversite konferans salonunda başlayan, çalıştaya İngiltere, Kanada, Yunanistan, Japonya, Hollanda'nın yanı sıra matematik alanında uluslararası üne sahip olan bilim insanları katıldı. Konuşmacılar arasında Kanada British Colombia Üniversitesi'nden Michael A. Bennet, Hollanda VU Amsterdam Üniversitesi'nden Sander R. Dahmen, İngiltere Warwick Üniversite'nden Samir Siksek gibi bilim insanlarının yanında Bornova Anadolu Lisesi 3. Sınıf öğrencisi İbrahim Emre Kıvançı Uluslar arası Çalıştaya katılan en genç katılımcı olarak dikkat çekti. 3'te

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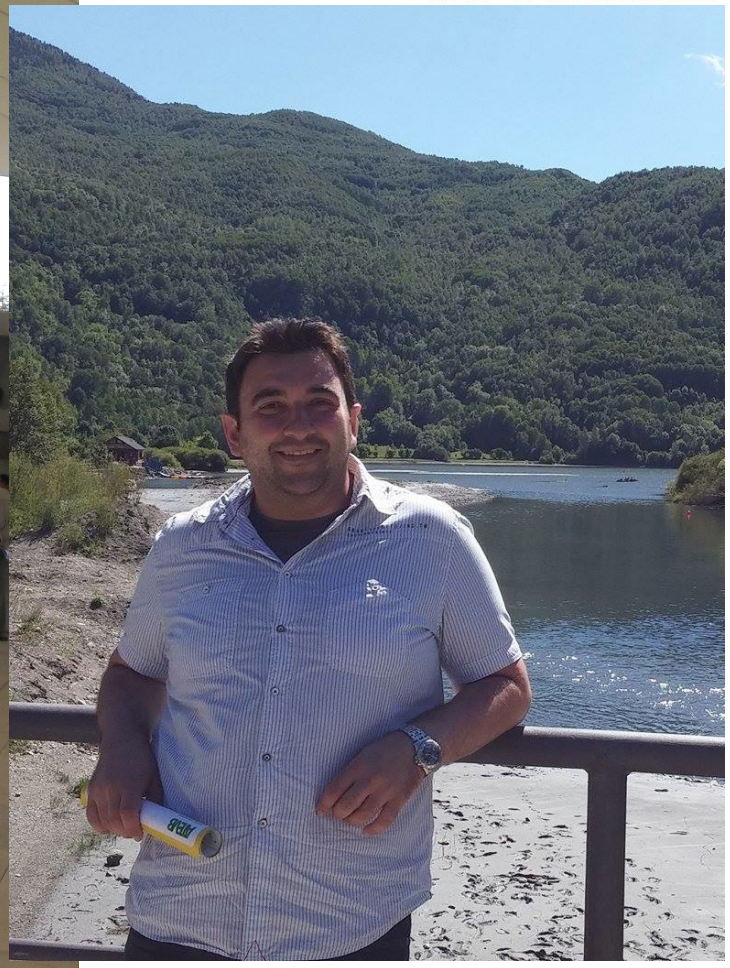

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PIERRE DE FERMAT 1601 · 1665
RF
LA POSTE 2001
4,50 F
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$x^n + y^n = z^n$
n'a pas de solution pour des entiers $n > 2$
ITVF
LAVERGNE

Sophie GERMAIN (portrait de), à l'âge de 51 ans.

Sophie Germain

- Born: 1st April 1776
- Died: 27th June 1831 (Age 55)
- Residence: Paris, France

- Alias: Auguste Antoine LeBlanc

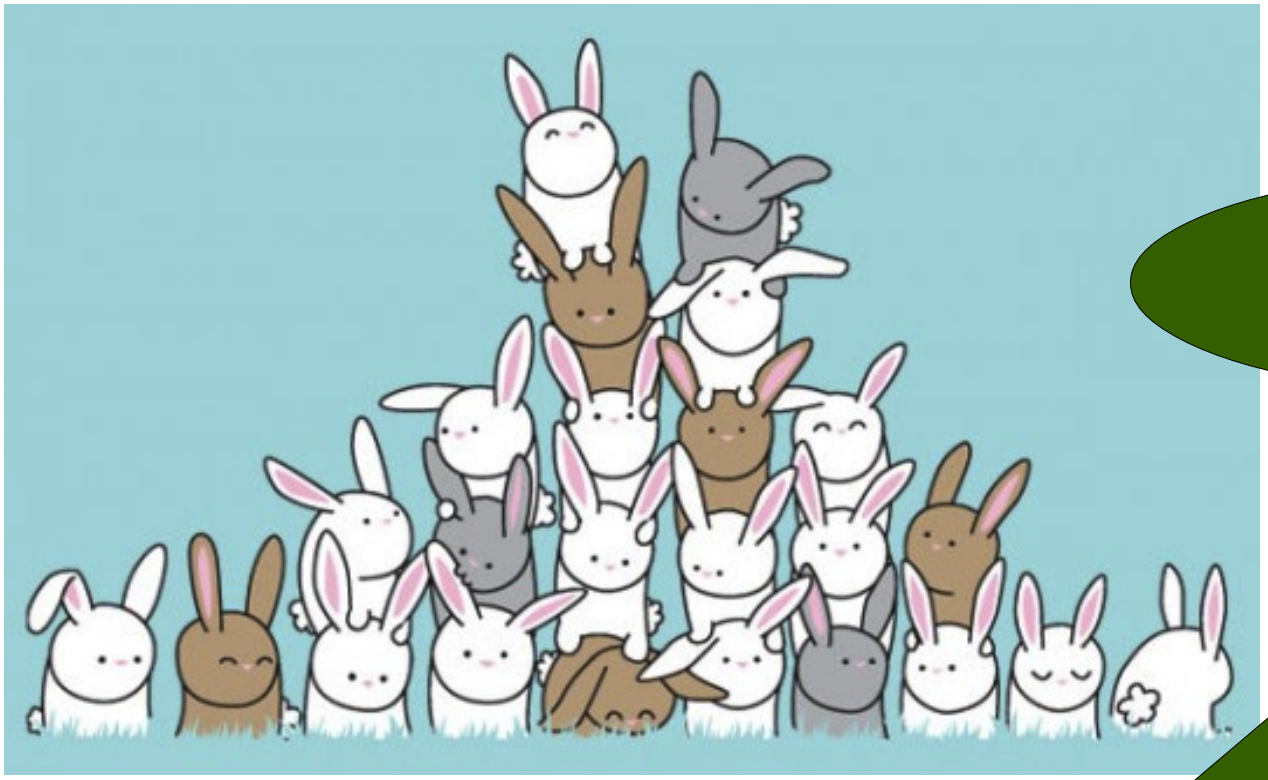
- Known for: Elasticity Theory, Differential Geometry, Philosophy and Number Theory

Sophie Germain's Theorem

Let p be an odd prime.
If there exists an auxiliary prime $P = 2Np + 1$ (N any positive integer not divisible by 3) such that:

- if $x^p + y^p + z^p = 0 \pmod P$ then P divides xyz, and
- p is not a p^{th} power residue (mod P)

Then Fermat's Last Theorem holds true for p where p does not divide x, y or z.



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$$F_n + 2 = y^p$$

$$(n, y, p) = (3, \pm 2, 2)\ (-2, 1, p)\ ???$$

$$F_n = \{0, 1, 1, 2, 3, 5, \ldots\}$$

Ada Lovelace (Augusta Ada King)

* Title: Countess of Lovelace
* Born: 10th Dec 1815
* Died: 27th Nov 1852 (Age 36)
* Residence: Leicestershire, Surrey, England
* Known For: Work on an early general purpose computer with Charles Babbage

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Ada Lovelace's Algorithm

1840 - Algorithm to compute Bernoulli numbers.

$B_0 = 1, B_1 = \pm 1/2, B_2 = 1/6,$
$B_3 = 0, B_4 = -1/30, B_5 = 0, \ldots$

Computational Number Theory

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$$f_1 := q - 84q^3 - 82q^5 - 456q^7 + 4869q^9 - 2524q^{11} + O(q^{12})$$

$$f_2 := q + 44q^3 + 430q^5 - 1224q^7 - 251q^9 - 3164q^{11} + O(q^{12})$$

Computational Number Theory

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$$f_1 := q - 84q^3 - 82q^5 - 456q^7 + 4869q^9 - 2524q^{11} + O(q^{12})$$

1-1 = 0

-2524 + 3164 = 640

$$f_2 := q + 44q^3 + 430q^5 - 1224q^7 - 251q^9 - 3164q^{11} + O(q^{12})$$

Computational Number Theory

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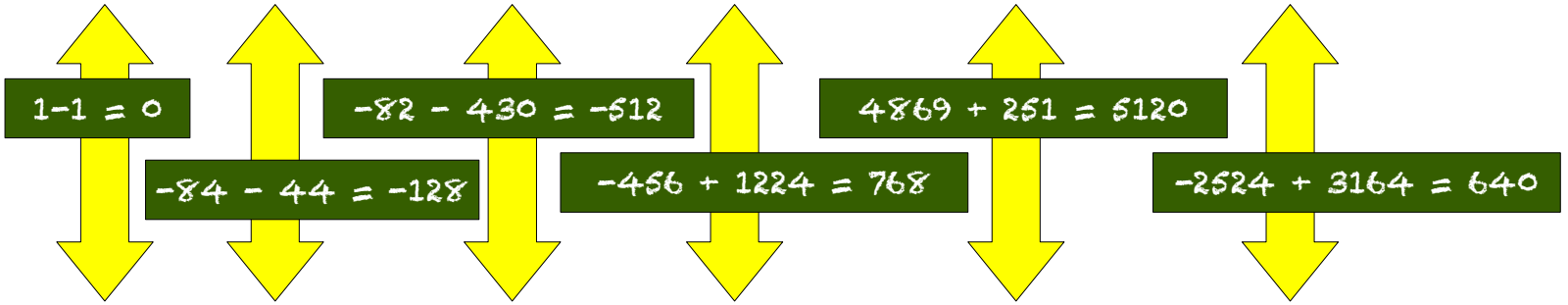
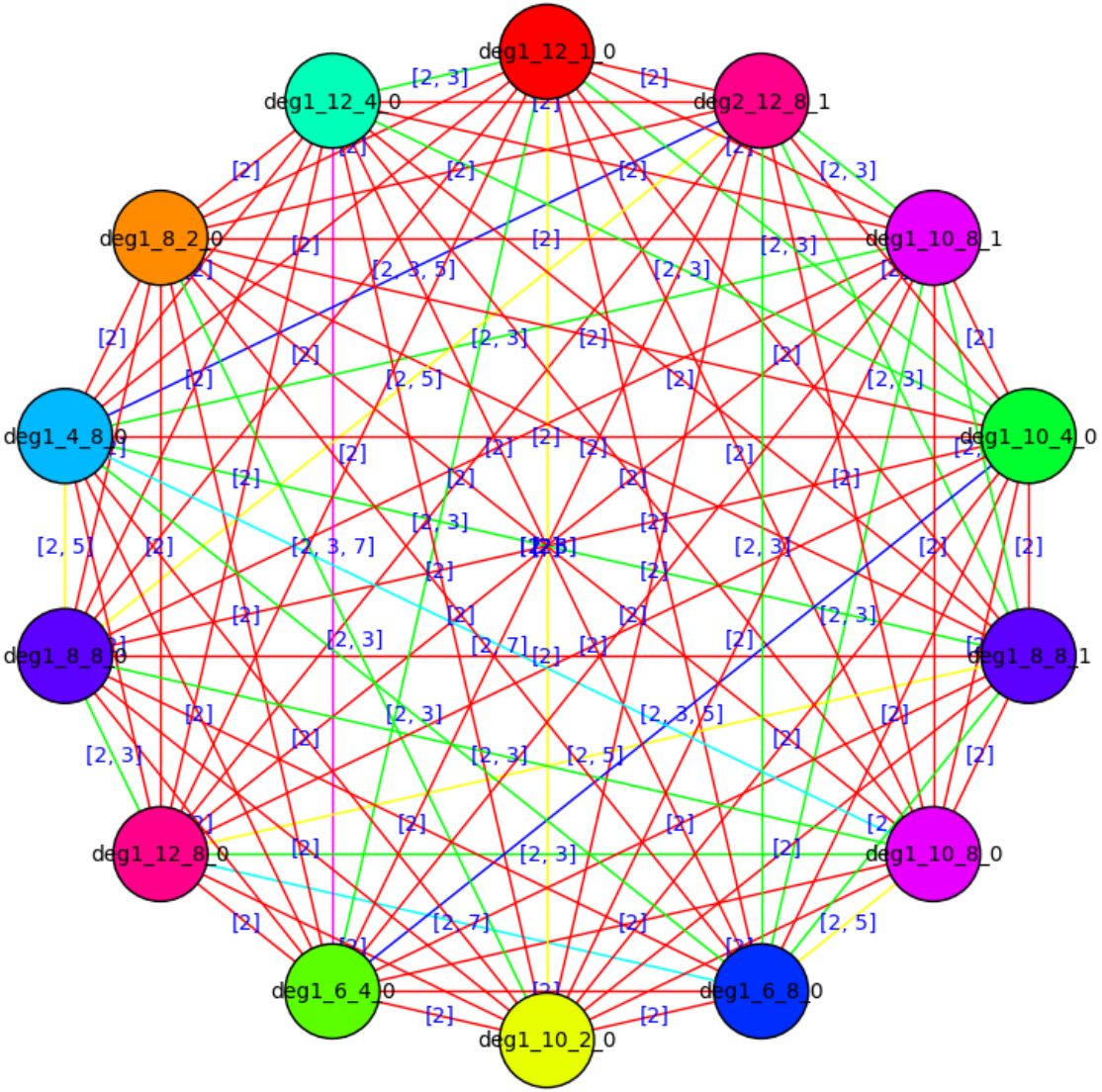
$$f_1 := q - 84q^3 - 82q^5 - 456q^7 + 4869q^9 - 2524q^{11} + O(q^{12})$$



$$f_2 := q + 44q^3 + 430q^5 - 1224q^7 - 251q^9 - 3164q^{11} + O(q^{12})$$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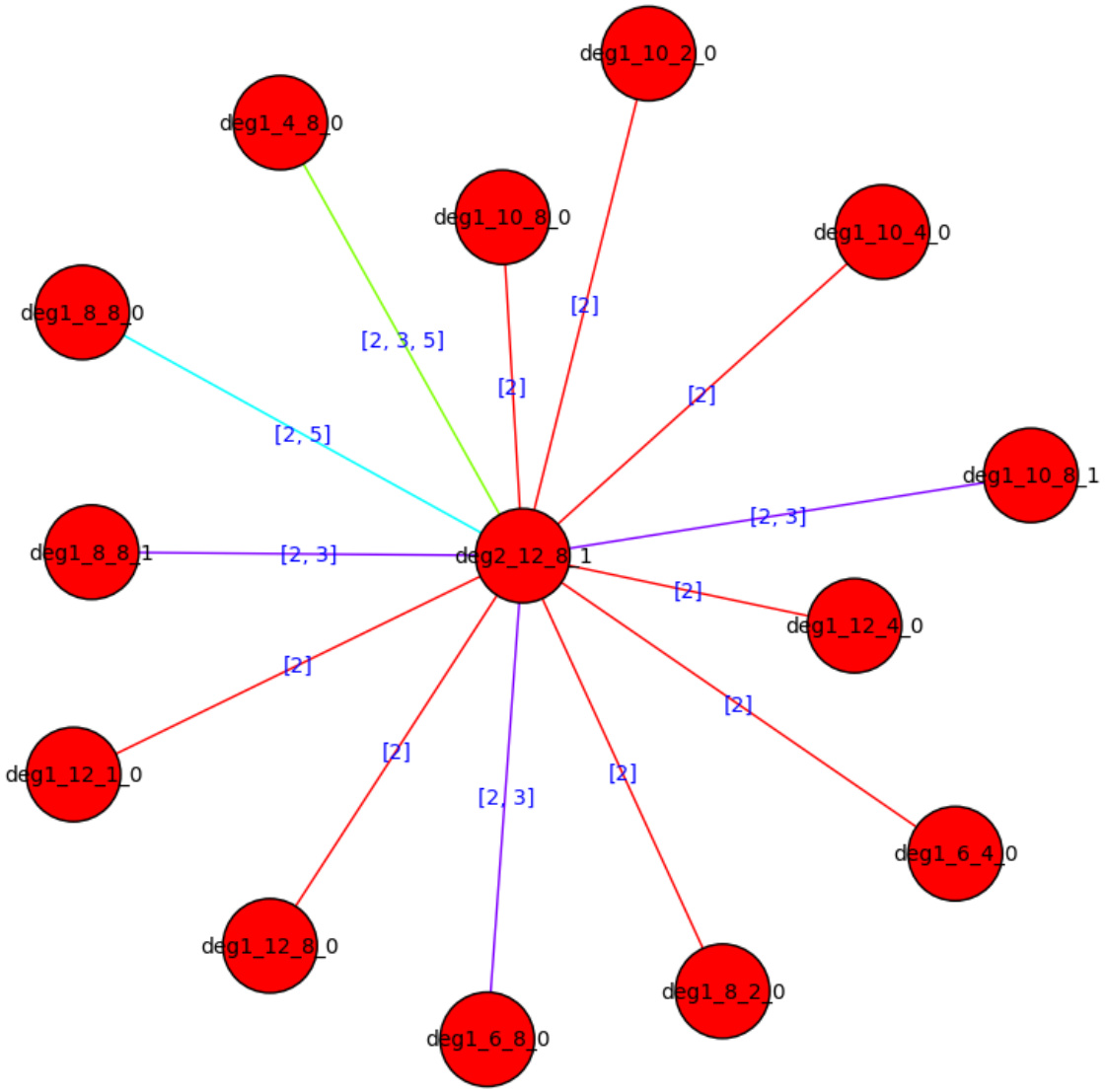
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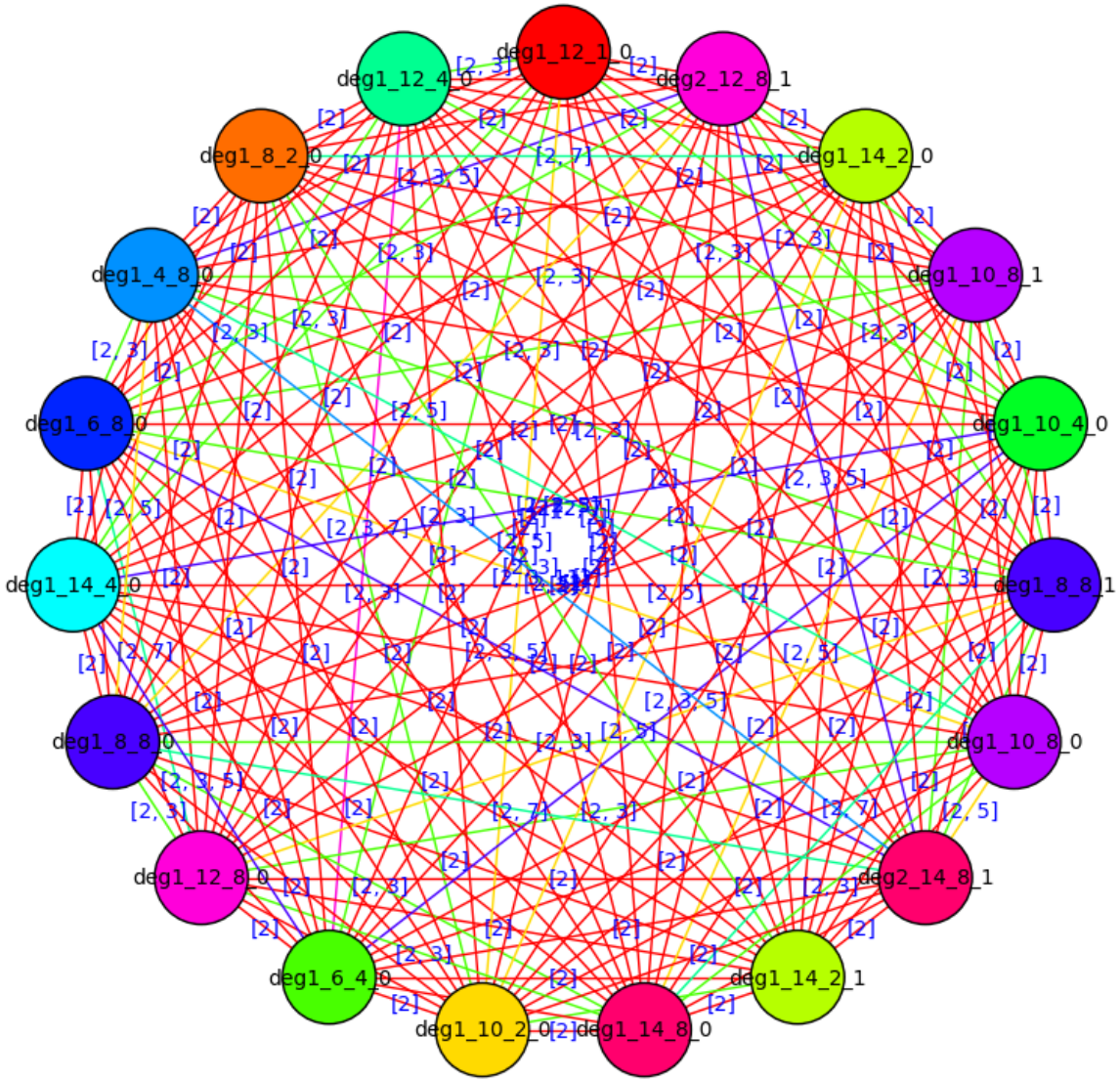
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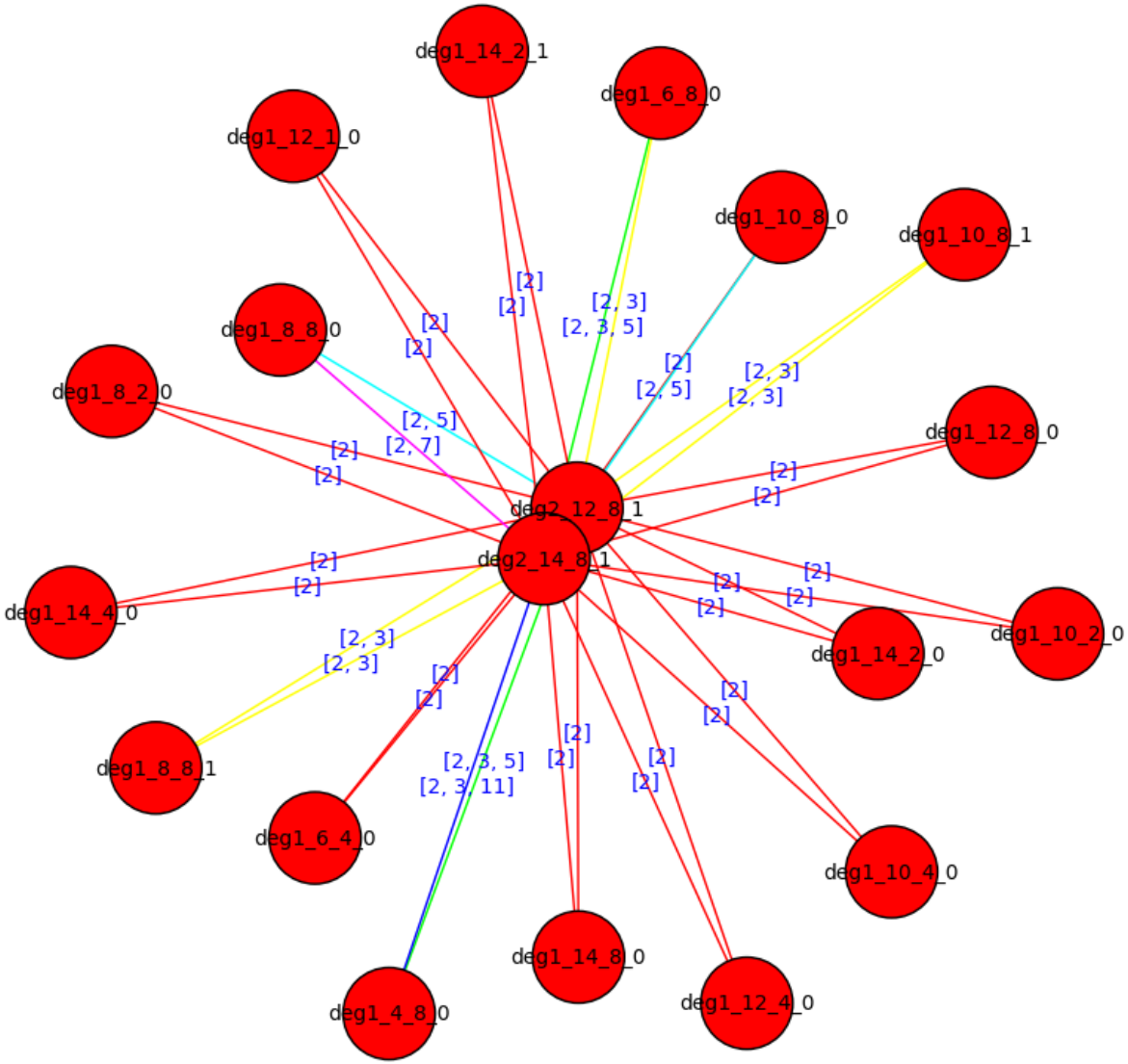
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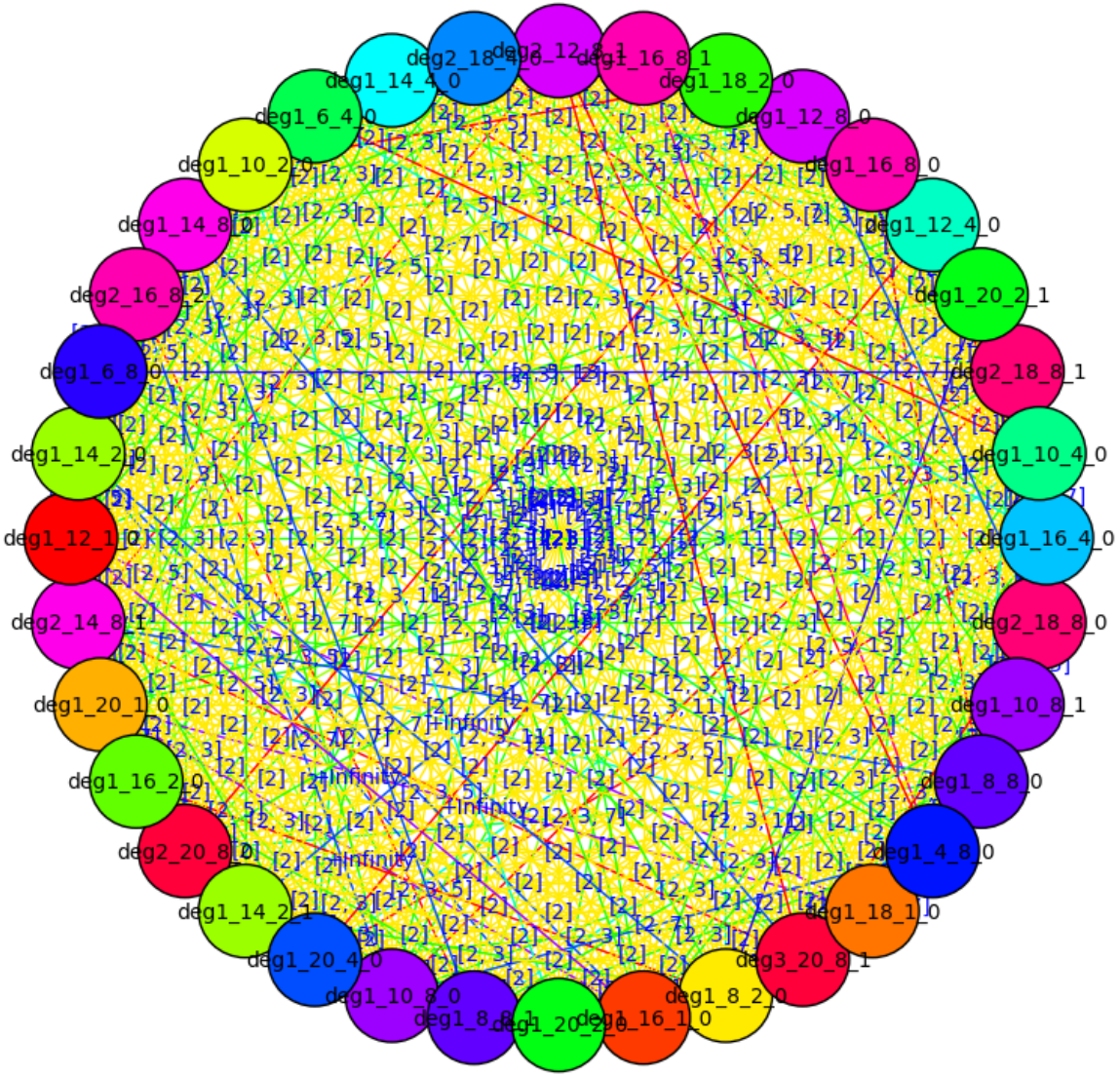
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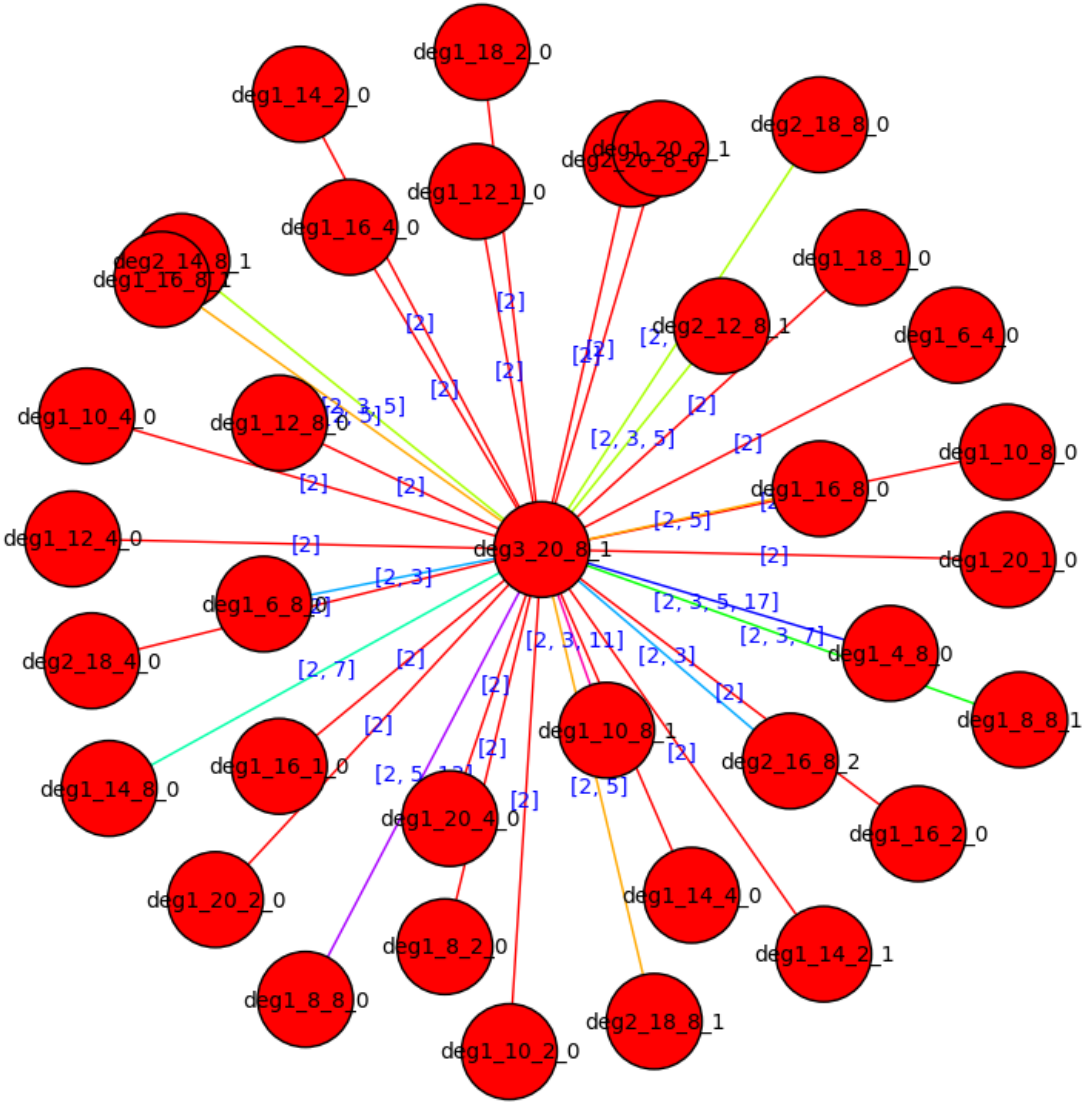
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