

LAMI tables at depths 1,2,3,4 up to weight s=29

lami at depth 1 up to weight s=29

[LAMI_3_1 = v1^2, LAMI_5_1 = v1^4, LAMI_7_1 = v1^6, LAMI_9_1 = v1^8, LAMI_11_1 = v1^10, LAMI_13_1 = v1^12,
LAMI_15_1 = v1^14, LAMI_17_1 = v1^16, LAMI_19_1 = v1^18, LAMI_21_1 = v1^20, LAMI_23_1 = v1^22, LAMI_25_1 = v1^24,
LAMI_27_1 = v1^26, LAMI_29_1 = v1^28]

lami at depth 2 up to weight s=29

[LAMI_3_2 = -2*v2 + v1,
LAMI_5_2 = (-2*v2 + v1)*(4*v1^2 - 3*v1*v2 + 3*v2^2)/2,
LAMI_7_2 = (-2*v2 + v1)*(v1^2 - v1*v2 + v2^2)*(3*v1^2 - 2*v1*v2 + 2*v2^2),
LAMI_9_2 = (-2*v2 + v1)*(8*v1^6 - 21*v1^5*v2 + 41*v1^4*v2^2 - 45*v1^3*v2^3 + 35*v1^2*v2^4 - 15*v1*v2^5 + 5*v2^6)/2,
LAMI_11_2 = (-2*v2 + v1)*(10*v1^8 - 36*v1^7*v2 + 92*v1^6*v2^2 - 147*v1^5*v2^3 + 167*v1^4*v2^4
- 129*v1^3*v2^5 + 71*v1^2*v2^6 - 24*v1*v2^7 + 6*v2^8)/2,
LAMI_13_2 = (-2*v2 + v1)*(v1^2 - v1*v2 + v2^2)*(12*v1^8 - 43*v1^7*v2 + 120*v1^6*v2^2 - 203*v1^5*v2^3
+ 231*v1^4*v2^4 - 175*v1^3*v2^5 + 91*v1^2*v2^6 - 28*v1*v2^7 + 7*v2^8)/2,
LAMI_15_2 = (-2*v2 + v1)*(7*v1^12
- 39*v1^11*v2 + 149*v1^10*v2^2 - 385*v1^9*v2^3 + 731*v1^8*v2^4 - 1041*v1^7*v2^5 + 1135*v1^6*v2^6 - 948*v1^5*v2^7
+ 606*v1^4*v2^8 - 290*v1^3*v2^9 + 102*v1^2*v2^10 - 24*v1*v2^11 + 4*v2^12),
LAMI_17_2 = (-2*v2 + v1)*(16*v1^14
- 105*v1^13*v2 + 469*v1^12*v2^2 - 1443*v1^11*v2^3 + 3301*v1^10*v2^4 - 5775*v1^9*v2^5 + 7897*v1^8*v2^6 - 8517*v1^7*v2^7
+ 7275*v1^6*v2^8 - 4899*v1^5*v2^9 + 2577*v1^4*v2^10 - 1035*v1^3*v2^11 + 309*v1^2*v2^12 - 63*v1*v2^13 + 9*v2^14)/2,
LAMI_19_2 = (-2*v2 + v1)*(v1^2 - v1*v2 + v2^2)*(18*v1^14 - 118*v1^13*v2 + 560*v1^12*v2^2 - 1807*v1^11*v2^3
+ 4290*v1^10*v2^4 - 7722*v1^9*v2^5 + 10737*v1^8*v2^6 - 11626*v1^7*v2^7 + 9844*v1^6*v2^8 - 6495*v1^5*v2^9
+ 3312*v1^4*v2^10 - 1280*v1^3*v2^11 + 365*v1^2*v2^12 - 70*v1*v2^13 + 10*v2^14)/2,
LAMI_21_2 = (-2*v2 + v1)*(20*v1^18
- 171*v1^17*v2 + 987*v1^16*v2^2 - 4012*v1^15*v2^3 + 12324*v1^14*v2^4 - 29617*v1^13*v2^5 + 57045*v1^12*v2^6
- 89401*v1^11*v2^7 + 115127*v1^10*v2^8 - 122463*v1^9*v2^9 + 107789*v1^8*v2^10 - 78353*v1^7*v2^11 + 46783*v1^6*v2^12
- 22715*v1^5*v2^13 + 8833*v1^4*v2^14 - 2684*v1^3*v2^15 + 616*v1^2*v2^16 - 99*v1*v2^17 + 11*v2^18)/2,
LAMI_23_2 = (-2*v2 + v1)*(22*v1^20 - 210*v1^19*v2 + 1350*v1^18*v2^2 - 6156*v1^17*v2^3 + 21336*v1^16*v2^4 - 58276*v1^15*v2^5
+ 128604*v1^14*v2^6 - 233107*v1^13*v2^7 + 350975*v1^12*v2^8 - 442117*v1^11*v2^9 + 467843*v1^10*v2^10
- 416393*v1^9*v2^11 + 311279*v1^8*v2^12 - 194633*v1^7*v2^13 + 101047*v1^6*v2^14 - 43064*v1^5*v2^15 + 14818*v1^4*v2^16
- 4014*v1^3*v2^17 + 826*v1^2*v2^18 - 120*v1*v2^19 + 12*v2^20)/2,
LAMI_25_2 = (-2*v2 + v1)*(v1^2 - v1*v2 + v2^2)*(
24*v1^20 - 229*v1^19*v2 + 1540*v1^18*v2^2 - 7296*v1^17*v2^3 + 26163*v1^16*v2^4 - 73644*v1^15*v2^5 + 166686*v1^14*v2^6
- 308260*v1^13*v2^7 + 470848*v1^12*v2^8 - 598065*v1^11*v2^9 + 634140*v1^10*v2^10 - 561990*v1^9*v2^11
+ 415779*v1^8*v2^12 - 255814*v1^7*v2^13 + 130000*v1^6*v2^14 - 53976*v1^5*v2^15 + 18018*v1^4*v2^16 - 4719*v1^3*v2^17
+ 936*v1^2*v2^18 - 130*v1*v2^19 + 13*v2^20)/2,
LAMI_27_2 = (-2*v2 + v1)*(26*v1^24 - 300*v1^23*v2 + 2324*v1^22*v2^2
- 12903*v1^21*v2^3 + 54923*v1^20*v2^4 - 186165*v1^19*v2^5 + 515699*v1^18*v2^6 - 1188678*v1^17*v2^7 + 2309468*v1^16*v2^8
- 3817350*v1^15*v2^9 + 5403194*v1^14*v2^10 - 6577473*v1^13*v2^11 + 6903353*v1^12*v2^12 - 5215955*v1^11*v2^13
+ 4880669*v1^10*v2^14 - 3276558*v1^9*v2^15 + 1883168*v1^8*v2^16 - 920490*v1^7*v2^17 + 379094*v1^6*v2^18
- 12984*v1^5*v2^19 + 36323*v1^4*v2^20 - 8085*v1^3*v2^21 + 1379*v1^2*v2^22 - 168*v1*v2^23 + 14*v2^24)/2,
LAMI_29_2 = (-2*v2 + v1)*(28*v1^26 - 351*v1^25*v2 + 2951*v1^24*v2^2 - 17850*v1^23*v2^3 + 83054*v1^22*v2^4 - 308913*v1^21*v2^5
+ 942953*v1^20*v2^6 - 2406240*v1^19*v2^7 + 5202524*v1^18*v2^8 - 9624963*v1^17*v2^9 + 15347363*v1^16*v2^10
- 21201210*v1^15*v2^11 + 25461494*v1^14*v2^12 - 26635773*v1^13*v2^13 + 24287213*v1^12*v2^14 - 19289490*v1^11*v2^15
+ 1331695*v1^10*v2^16 - 7963383*v1^9*v2^17 + 4103243*v1^8*v2^18 - 1808520*v1^7*v2^19 + 675104*v1^6*v2^20
- 210573*v1^5*v2^21 + 53873*v1^4*v2^22 - 11010*v1^3*v2^23 + 1730*v1^2*v2^24 - 195*v1*v2^25 + 15*v2^26)/2]

lami at depth 3 up to weight s=29

[LAMI_3_3 = 1/3,
LAMI_5_3 = 2*v1^2 - 11/2*v1*v2 + 9/2*v3*v1 - 1/2*v2^2 + 2*v2*v3 - 1/2*v3^2,
LAMI_7_3 = 5*v1^4 - 221/16*v1^3*v2 + 5/8*v1^3*v3 + 61/8*v1^2*v2^2
+ 157/16*v1^2*v3*v2 - 1/4*v1^2*v3^2 - 109/16*v2^2*v3*v1 + 75/8*v2^2*v3*v1 - 291/16*v3^2*v2*v1 + 61/8*v3^3*v1 - 2*v2^4
+ 115/16*v2^3*v3 - 51/8*v2^2*v3^2 + 115/16*v3^3*v2 - 2*v3^4,
LAMI_9_3 = -2189/72*v1^5*v2 - 461/72*v2^5*v1 - 59*v1^3*v3^2*v2 + 46*v3^3*v1^2*v2 + 1567/36*v3^3*v2^2*v1 - 53/36*v2^2*v1^3*v3
+ 551/36*v3^5*v1 - 313/36*v1^5*v3 + 1159/72*v3^5*v2 + 1159/72*v2^5*v3 - 559/24*v2^4*v3^2 + 559/18*v2^3*v3^3
- 559/24*v2^2*v3^4 + 25/6*v2^6 + 28/3*v1^6 + 845/24*v1^4*v2^2 - 328/9*v1^3*v2^3 + 341/24*v1^2*v2^4 + 121/12*v1^4*v3^2
+ 115/18*v1^3*v3^3 - 131/12*v1^2*v3^4 + 593/36*v1^2*v2^3*v3 + 1/3*v1^2*v2^2*v3^2 + 439/36*v1*v2^2*v3
+ 1567/36*v1*v2^2*v3^2 - 3319/72*v1*v2*v3^4 - 25/6*v3^6 + 2513/72*v1^4*v3*v2,
LAMI_11_3 = -7*v3^8 - 2723/48*v1^7*v2 - 83/48*v2^7*v1 - 7*v2^8 + 15*v1^8
+ 4669/48*v1^6*v2^2 - 3347/24*v1^5*v2^3 + 364/3*v1^4*v2^4 - 1763/24*v1^3*v2^5 + 709/48*v1^2*v2^6 - 685/24*v1^7*v3
+ 1163/24*v1^6*v3^2 + 1501/48*v2^7*v3 - 2987/48*v2^6*v3^2 - 817/24*v1^2*v3^6 + 635/24*v1*v3^7 + 2329/24*v2^5*v3^3
- 625/6*v2^4*v3^4 + 2329/24*v2^3*v3^5 - 2987/48*v2^2*v3^6 + 1501/48*v2*v3^7 - 97/6*v1^4*v3^4 + 521/12*v1^3*v3^5
- 271/12*v1^5*v3^3 + 1527/16*v1^6*v3*v2 - 765/4*v1^5*v3^3^2*v2 - 849/16*v1^5*v3^3*v2^2 + 489/4*v3^5*v2*v1^2
- 1553/16*v3^6*v2^2*v1 + 2407/16*v3^5*v2^2*v1 + 669/16*v2^5*v3^3*v1^2 - 1091/16*v2^5*v3^3^2*v1 + 3019/48*v1^4*v2^2*v3
+ 3767/48*v1^4*v2^2*v3^2 - 167/16*v1^3*v2^2*v3^3 - 545/4*v1^3*v2^2^3*v3^2 - 179/24*v1^2*v2^2^4*v3^2 + 21/8*v1*v2^2^6*v3
+ 445/4*v1^2*v2^2^3*v3^3 - 3361/48*v1^2*v2^2^4*v3^4 - 9389/48*v1*v2^2^3*v3^4 + 2033/16*v1*v2^2^4*v3^3 + 4969/24*v1^4*v2^3*v3^3
+ 26*v1^3*v2^2^2*v3^3 - 4535/24*v1^3*v2^3*v3^4,
LAMI_13_3 = -2267/24*v1^9*v2
+ 229/24*v2^9*v1 - 21/2*v3^10 - 21/2*v2^10 + 22*v1^10 - 20927/48*v1^5*v2^5 + 5221/24*v1^8*v2^2 - 38981/96*v1^7*v2^3
+ 11825/24*v1^6*v2^4 + 6677/24*v1^4*v2^6 - 11525/96*v1^3*v2^7 + 73/24*v1^2*v2^8 + 1321/24*v2^9*v3 - 3203/24*v2^8*v3^2
- 997/12*v1^2*v3^8 + 485/12*v1*v3^9 + 23419/96*v2^7*v3^3 - 8611/24*v2^6*v3^4 + 20569/48*v2^5*v3^5 - 8611/24*v2^4*v3^6
+ 2939/96*v2^3*v3^7 - 7639/24*v2^2*v3^8 + 1321/24*v2*v3^9 - 763/12*v1^9*v3 + 1577/12*v1^8*v3^2 + 979/12*v1^6*v3^4
+ 203/24*v1^5*v3^5 - 1595/12*v1^4*v3^6 + 7829/48*v1^3*v3^7 - 5899/48*v1^7*v3^3 + 25889/96*v3^7*v2*v1^2
- 4009/24*v3^8*v2*v1 + 32207/96*v3^7*v2^2*v1 + 5507/24*v1^8*v3*v2 - 49615/96*v1^7*v3^2*v2 - 25825/96*v1^7*v3*v2^2
+ 547/3*v2^7*v3*v1^2 + 1/3*v2^7*v3^2*v1 + 11871/32*v1^6*v2^3*v3 + 15225/32*v1^6*v2^2*v3^2 - 25513/96*v1^5*v2^2^4*v3
+ 58949/96*v1^5*v2^2^3*v3^2 + 4461/32*v1^4*v2^2^5*v3 + 34183/96*v1^4*v2^2^4*v3^2 - 1039/16*v1^3*v2^2^6*v3
- 779/3*v1^3*v2^2^5*v3^2 - 3769/16*v1^2*v2^2^6*v3^2 - 737/12*v1*v2^2^8*v3 + 1445/6*v1^2*v2^2^5*v3^3 - 13865/96*v1^2*v2^2^4*v3^4
+ 37147/96*v1^2*v2^2^3*v3^5 - 7655/32*v1^2*v2^2^4*v3^6 + 4057/16*v1*v2^2^6*v3^3 - 17379/32*v1*v2^2^5*v3^4
+ 53111/96*v1*v2^2^4*v3^5 - 16833/32*v1*v2^2^3*v3^6 + 18943/32*v1^6*v2^3*v3^3 - 4041/32*v1^5*v2^2^2*v3^3
- 33199/48*v1^5*v2^2^3*v3^4 - 10111/48*v1^4*v2^2^2*v3^4 + 38873/48*v1^4*v2^2^3*v3^5 + 11975/32*v1^3*v2^2^2*v3^5
- 19953/32*v1^3*v2^2^3*v3^6 + 34781/96*v1^4*v2^2^3*v3^3 + 13315/48*v1^3*v2^2^4*v3^3 - 61315/96*v1^3*v2^2^3*v3^4,
LAMI_15_3 = -2645647/1440*v1^7*v2^5 - 12237/80*v1^11*v2 + 1763/80*v2^11*v1
+ 6563/80*v2^11*v3 - 179669/720*v2^10*v3^2 - 62971/360*v1^2*v3^10 + 2877/40*v1*v3^11 + 836143/1440*v2^9*v3^3
- 289387/288*v2^8*v3^4 + 1998353/1440*v2^7*v3^5 - 368039/240*v2^6*v3^6 + 1998353/1440*v2^5*v3^7 - 289387/288*v2^4*v3^8
+ 836143/1440*v2^3*v3^9 - 179669/720*v2^2*v3^10 + 6563/80*v2*v3^11 - 4123/40*v1^11*v3 + 100829/360*v1^10*v3^2
- 338623/720*v1^9*v3^3 + 74395/144*v1^8*v3^4 - 190433/720*v1^7*v3^5 - 17041/120*v1^6*v3^6 + 324367/720*v1^5*v3^7
- 69749/144*v1^4*v3^8 + 251057/720*v1^3*v3^9 - 44/3*v2^12 + 91/3*v1^12 + 306331/720*v1^10*v2^2 - 1336817/1440*v1^9*v2^3
+ 29173/288*v1^8*v2^4 + 402361/240*v1^6*v2^6 - 1616047/1440*v1^5*v2^7 + 140885/288*v1^4*v2^8 - 157457/1440*v1^3*v2^9
- 21269/720*v1^2*v2^10 - 44/3*v3^12 + 291119/720*v1^10*v3*v2 - 1486711/1440*v1^9*v3^2*v2 - 943999/1440*v1^9*v3*v2^2
+ 31459/144*v2^9*v3^2*v1^2 - 5761/144*v2^9*v3^3^2*v1 - 1423993/1440*v1^8*v2^2^3*v3 + 590219/480*v1^8*v2^2^2*v3^2
- 90815/96*v1^7*v2^2^4*v3 - 135592/720*v1^7*v2^2^3*v3^2 + 1182397/1440*v1^6*v2^2^5*v3 + 574433/360*v1^6*v2^2^4*v3^2
- 10287/280*v1^5*v2^2^6*v3 - 710437/480*v1^5*v2^2^5*v3^2 + 10435/24*v1^4*v2^2^7*v3 + 288989/480*v1^4*v2^2^6*v3^2
- 1977/72*v1^3*v2^2^8*v3 - 134713/360*v1^3*v2^2^7*v3^2 - 43979/240*v1^2*v2^2^8*v3^2 - 26159/360*v1*v2^2^10*v3
- 192887/360*v1^2*v2^2^7*v3^3 - 322531/480*v1^2*v2^2^6*v3^4 + 599063/480*v1^2*v2^2^5*v3^5 - 501967/360*v1^2*v2^2^4*v3^6
+ 1124473/720*v1^2*v2^2^3*v3^7 - 501781/480*v1^2*v2^2^2*v3^8 + 25883/72*v1*v2^2^8*v3^3 - 26861/24*v1*v2^2^7*v3^4
+ 38713/20*v1*v2^2^6*v3^5 - 3526403/1440*v1*v2^2^5*v3^6 + 213025/96*v1*v2^2^4*v3^7 - 2255207/1440*v1*v2^2^3*v3^8
+ 2646187/1440*v1^8*v2^2^3*v3^3 - 854327/720*v1^7*v2^2^3*v3^3 - 254669/96*v1^7*v2^2^3*v3^4 + 1142341/1440*v1^6*v2^2^2^3*v4
+ 4268507/1440*v1^6*v2^2^3*v3^5 + 55477/240*v1^5*v2^2^2^3*v3^5 - 3968293/1440*v1^5*v2^2^3*v3^6 - 1328699/1440*v1^4*v2^2^2^3*v6
+ 198355/96*v1^4*v2^2^3*v3^7 + 970873/720*v1^3*v2^2^2^3*v3^7 - 1940213/1440*v1^3*v2^2^3*v3^8 + 148477/80*v1^6*v2^2^3*v3^3
- 169451/288*v1^5*v2^2^4*v3^3 - 170581/80*v1^5*v2^2^3*v3^4 + 1298353/1440*v1^4*v2^2^5*v3^3 + 1/3*v1^4*v2^2^4*v3^4
+ 149739/80*v1^4*v2^2^3*v3^5 + 7563/40*v1^3*v2^2^6*v3^3 - 1846607/1440*v1^3*v2^2^5*v3^4 + 354709/288*v1^3*v2^2^4*v3^5
- 163523/80*v1^3*v2^2^3*v3^6 + 1003049/1440*v3^9*v2^2*v1^2 - 238081/720*v3^10*v2^2*v1 + 1142561/1440*v3^9*v2^2^2*v1,
LAMI_17_3 = -371753/60*v1^9*v2^5 - 32209/120*v1^13*v2 + 431/120*v2^13*v1
- 39/2*v2^14 + 40*v1^14 - 58573/10*v1^7*v2^7 + 4619/24*v3^11*k2*v1^2 - 41937/40*v3^12*k2*v1 + 72421/20*v3^11*k2^2*v1
+ 8383/40*v1^12*k2*v2 - 2249/12*v1^11*k3^2*v2 + 11901/20*v1^11*k3*v2^2 - 49911/20*v2^11*k3*v1^2 - 58071/20*v2^11*k3^2*v1
- 140359/30*v1^10*k2^2*v3 + 413/15*v1^10*v2^2^2*v3^2 + 1306609/120*v1^9*k2^2^4*v3 + 45361/15*v1^9*k2^3^3*v3^2]

+ 1016574553907687*v1^12*v2*v3^7*v4^5/576 + 1482849849325459*v1^12*v2*v3^6*v4^6/252
- 50712335290819*v1^12*v2*v3^5*v4^7/63 - 106391706302352911*v1^12*v2*v3^4*v4^8/4032
+ 1610071736238341*v1^12*v2*v3^3*v4^9/1344 - 810928510547909*v1^12*v2*v3^2*v4^10/224 + 7297966061113139*v1^12*v3*v4^12/2016
+ 175058772189827*v1^11*v2^2*v3^9*v4^3/336 - 160221680297325*v1^11*v2^2*v3^8*v4^4/112
- 4601456985905705*v1^11*v2^2*v3^7*v4^5/1344 - 49890456155455*v1^11*v2^2*v3^6*v4^6/192
+ 33577161245938645*v1^11*v2^2*v3^5*v4^7/1344 + 96930370073195*v1^11*v2^2*v3^4*v4^8/336
- 36669849301501267*v1^11*v2^2*v3^3*v4^9/504 - 698431617601*v1^11*v2*v3^11*v4^2/672
+ 10564285464685769*v1^11*v2*v3^10*v4^3/2016 + 6876191303140469*v1^11*v2*v3^9*v4^4/4032
- 696483973288111*v1^11*v2*v3^8*v4^5/672 - 4330993571246501*v1^11*v2*v3^7*v4^6/4032
- 30595285345120441*v1^11*v2*v3^6*v4^7/4032 + 37255664975937*v1^11*v2*v3^5*v4^8/56
+ 136423174881601259*v1^11*v2*v3^4*v4^9/4032 - 493891207092673*v1^11*v2*v3^3*v4^10/1008
- 1348242932835587*v1^11*v2*v3^2*v4^11/28]

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