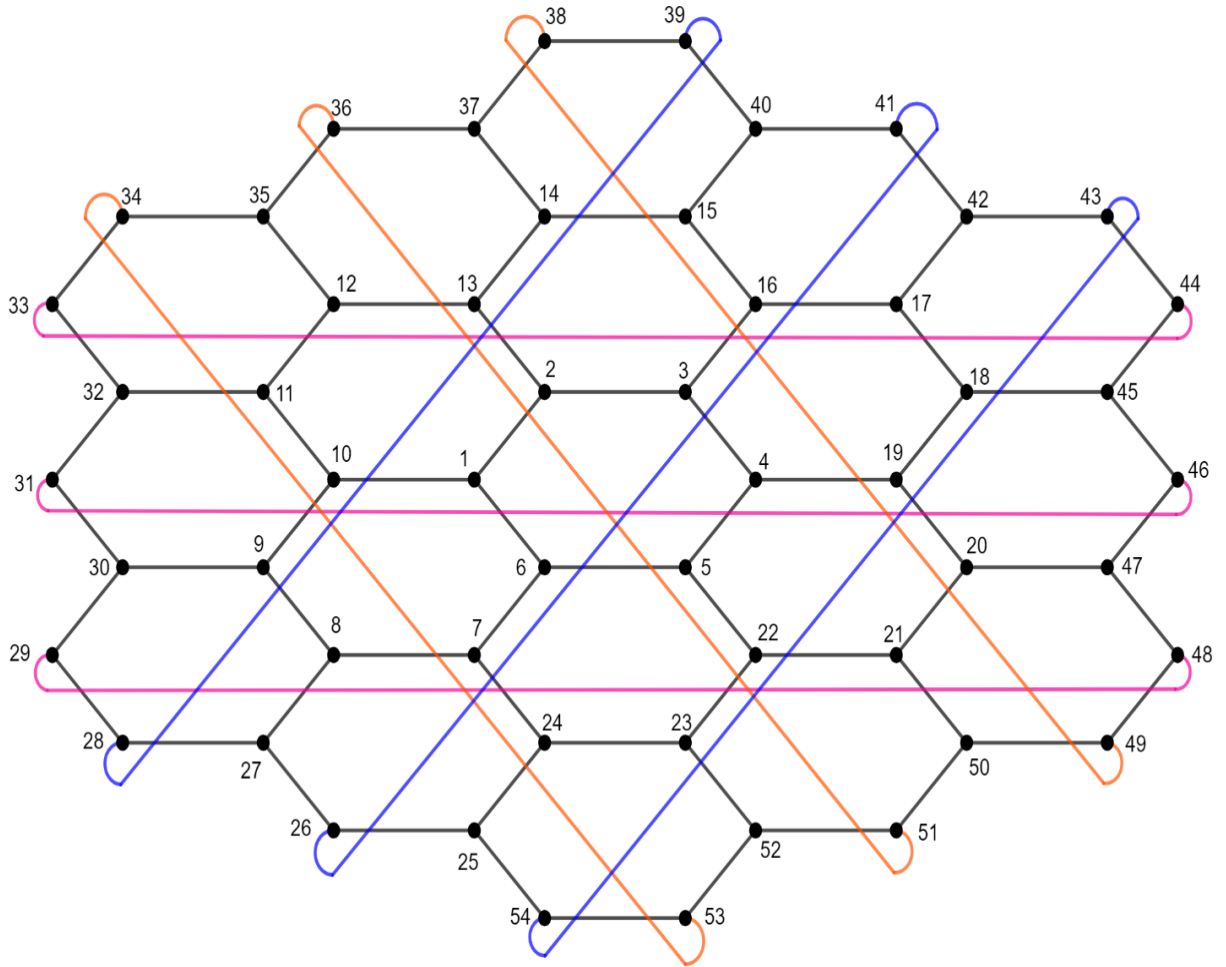# Honeycomb Torus Network of dimension three $HCT(3)$

1-fault tolerant metric dimension - 6

$1DRW$ index - 810

Extracted 1-fault tolerant metric bases using extended $BIGS$ algorithm

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114.	{2, 7, 16, 27, 36, 53}	157.	{2, 15, 22, 24, 29, 49}
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116.	{2, 7, 21, 38, 42, 53}	159.	{2, 15, 23, 31, 48, 54}
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118.	{2, 7, 32, 36, 39, 43}	161.	{2, 16, 19, 29, 31, 36}
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204.	{3, 7, 23, 32, 46, 54}	247.	{3, 17, 24, 28, 30, 47}
205.	{3, 8, 11, 37, 42, 52}	248.	{3, 18, 20, 30, 35, 37}
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373.	{5, 12, 20, 26, 33, 39}	416.	{6, 9, 16, 33, 39, 52}
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453.	{6, 16, 23, 30, 43, 49}	496.	{7, 12, 19, 30, 44, 51}
454.	{6, 17, 20, 27, 37, 52}	497.	{7, 12, 20, 26, 37, 45}
455.	{6, 17, 24, 37, 39, 50}	498.	{7, 13, 18, 31, 40, 54}
456.	{6, 17, 24, 37, 41, 50}	499.	{7, 13, 20, 31, 38, 52}
457.	{6, 17, 37, 41, 50, 52}	500.	{7, 14, 17, 30, 49, 54}
458.	{6, 19, 22, 26, 31, 33}	501.	{7, 14, 19, 21, 26, 28}
459.	{6, 19, 25, 34, 37, 48}	502.	{7, 14, 19, 21, 26, 38}
460.	{6, 19, 26, 29, 33, 52}	503.	{7, 14, 19, 23, 26, 38}
461.	{6, 19, 26, 35, 38, 43}	504.	{7, 14, 19, 28, 42, 51}
462.	{6, 20, 24, 31, 35, 45}	505.	{7, 14, 25, 32, 34, 39}
463.	{6, 20, 27, 35, 44, 49}	506.	{7, 14, 25, 32, 36, 39}
464.	{6, 21, 23, 30, 32, 37}	507.	{7, 14, 29, 32, 41, 52}
465.	{6, 21, 27, 33, 36, 42}	508.	{7, 14, 32, 34, 39, 41}
466.	{6, 21, 28, 32, 37, 53}	509.	{7, 15, 18, 28, 33, 52}
467.	{6, 22, 24, 31, 33, 45}	510.	{7, 16, 20, 25, 29, 46}
468.	{6, 22, 29, 33, 45, 54}	511.	{7, 16, 21, 38, 42, 51}
469.	{6, 22, 29, 33, 47, 54}	512.	{7, 16, 29, 38, 45, 52}
470.	{6, 23, 30, 32, 37, 49}	513.	{7, 16, 30, 37, 44, 53}
471.	{6, 28, 30, 35, 49, 53}	514.	{7, 18, 20, 25, 27, 46}
472.	{6, 29, 33, 47, 52, 54}	515.	{7, 18, 20, 27, 30, 53}
473.	{7, 9, 13, 18, 26, 44}	516.	{7, 18, 22, 25, 39, 46}
474.	{7, 9, 13, 20, 36, 38}	517.	{7, 18, 22, 39, 41, 46}
475.	{7, 9, 13, 20, 36, 48}	518.	{7, 18, 27, 43, 46, 50}
476.	{7, 10, 14, 21, 41, 46}	519.	{7, 18, 27, 43, 48, 50}
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478.	{7, 10, 14, 36, 41, 43}	521.	{7, 18, 41, 43, 48, 50}
479.	{7, 10, 21, 30, 44, 51}	522.	{7, 22, 32, 37, 40, 45}
480.	{7, 10, 21, 44, 46, 51}	523.	{8, 10, 15, 22, 39, 51}
481.	{7, 10, 37, 42, 45, 50}	524.	{8, 10, 15, 22, 49, 51}
482.	{7, 11, 13, 18, 26, 44}	525.	{8, 10, 17, 22, 31, 43}
483.	{7, 11, 13, 18, 26, 54}	526.	{8, 11, 14, 17, 20, 23}
484.	{7, 11, 13, 20, 36, 48}	527.	{8, 11, 18, 21, 37, 40}
485.	{7, 11, 16, 31, 40, 44}	528.	{8, 11, 19, 39, 44, 50}
486.	{7, 11, 18, 22, 36, 41}	529.	{8, 11, 24, 33, 37, 40}
487.	{7, 11, 21, 26, 38, 44}	530.	{8, 11, 30, 40, 51, 53}
488.	{7, 11, 22, 31, 36, 38}	531.	{8, 11, 40, 43, 48, 51}
489.	{7, 11, 22, 31, 38, 52}	532.	{8, 13, 15, 19, 28, 46}
490.	{7, 12, 14, 25, 27, 36}	533.	{8, 13, 15, 19, 46, 48}
491.	{7, 12, 14, 25, 29, 52}	534.	{8, 13, 17, 19, 28, 46}

535.	{8, 13, 18, 25, 36, 47}	578.	{9, 13, 16, 20, 26, 51}
536.	{8, 13, 19, 32, 41, 48}	579.	{9, 13, 16, 26, 31, 54}
537.	{8, 13, 22, 26, 35, 39}	580.	{9, 13, 16, 31, 40, 54}
538.	{8, 13, 24, 26, 35, 37}	581.	{9, 13, 17, 36, 48, 54}
539.	{8, 13, 24, 33, 37, 40}	582.	{9, 13, 22, 31, 48, 52}
540.	{8, 14, 20, 31, 41, 51}	583.	{9, 14, 17, 24, 47, 50}
541.	{8, 15, 18, 23, 32, 35}	584.	{9, 14, 25, 29, 34, 52}
542.	{8, 15, 19, 22, 31, 36}	585.	{9, 14, 25, 42, 46, 51}
543.	{8, 16, 23, 34, 39, 45}	586.	{9, 14, 33, 38, 42, 45}
544.	{8, 18, 22, 33, 39, 51}	587.	{9, 15, 21, 26, 36, 46}
545.	{8, 19, 22, 26, 31, 33}	588.	{9, 16, 18, 22, 29, 41}
546.	{8, 19, 22, 26, 33, 47}	589.	{9, 16, 20, 22, 29, 41}
547.	{8, 19, 24, 26, 45, 47}	590.	{9, 16, 20, 22, 39, 41}
548.	{8, 19, 24, 42, 45, 49}	591.	{9, 16, 22, 25, 39, 46}
549.	{8, 19, 26, 29, 45, 52}	592.	{9, 16, 24, 37, 43, 48}
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552.	{8, 19, 31, 42, 49, 52}	595.	{9, 16, 28, 31, 35, 42}
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554.	{8, 21, 24, 42, 45, 49}	597.	{9, 17, 22, 32, 40, 51}
555.	{8, 21, 28, 32, 35, 53}	598.	{9, 24, 27, 34, 36, 47}
556.	{8, 21, 32, 36, 41, 45}	599.	{9, 24, 36, 39, 44, 47}
557.	{8, 21, 42, 45, 49, 54}	600.	{9, 27, 29, 34, 36, 52}
558.	{8, 23, 25, 35, 46, 48}	601.	{9, 27, 36, 44, 49, 52}
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560.	{8, 25, 28, 35, 46, 51}	603.	{9, 29, 32, 36, 41, 52}
561.	{8, 25, 35, 46, 48, 51}	604.	{9, 32, 36, 39, 41, 52}
562.	{8, 28, 30, 35, 51, 53}	605.	{9, 36, 39, 44, 49, 54}
563.	{8, 30, 33, 38, 43, 51}	606.	{10, 12, 16, 21, 31, 49}
564.	{8, 30, 35, 38, 43, 51}	607.	{10, 12, 16, 23, 41, 43}
565.	{8, 33, 38, 43, 48, 51}	608.	{10, 12, 16, 23, 41, 53}
566.	{9, 11, 14, 38, 42, 45}	609.	{10, 13, 17, 24, 46, 51}
567.	{9, 11, 16, 31, 40, 42}	610.	{10, 13, 17, 32, 41, 48}
568.	{9, 11, 16, 38, 42, 45}	611.	{10, 13, 17, 41, 46, 48}
569.	{9, 11, 22, 31, 50, 52}	612.	{10, 13, 24, 26, 35, 49}
570.	{9, 11, 22, 47, 50, 54}	613.	{10, 13, 24, 26, 49, 51}
571.	{9, 11, 24, 47, 50, 54}	614.	{10, 13, 25, 42, 47, 50}
572.	{9, 12, 14, 25, 29, 52}	615.	{10, 14, 16, 21, 29, 31}
573.	{9, 12, 15, 18, 21, 24}	616.	{10, 14, 16, 21, 31, 49}
574.	{9, 12, 17, 20, 25, 52}	617.	{10, 14, 16, 23, 41, 53}
575.	{9, 12, 19, 42, 48, 53}	618.	{10, 14, 19, 36, 45, 49}
576.	{9, 12, 32, 39, 41, 52}	619.	{10, 14, 24, 31, 43, 49}
577.	{9, 12, 41, 44, 49, 52}	620.	{10, 15, 17, 27, 30, 34}

621.	{10, 15, 17, 30, 32, 41}	664.	{11, 26, 28, 33, 35, 40}
622.	{10, 15, 19, 28, 32, 41}	665.	{11, 26, 30, 33, 40, 51}
623.	{10, 15, 22, 24, 39, 51}	666.	{11, 26, 30, 40, 51, 53}
624.	{10, 15, 22, 26, 35, 49}	667.	{11, 26, 35, 38, 43, 48}
625.	{10, 15, 23, 31, 42, 50}	668.	{11, 26, 35, 40, 43, 48}
626.	{10, 16, 21, 29, 36, 45}	669.	{11, 26, 38, 43, 48, 53}
627.	{10, 16, 23, 27, 36, 43}	670.	{12, 14, 17, 43, 47, 50}
628.	{10, 17, 20, 29, 35, 54}	671.	{12, 14, 19, 36, 45, 47}
629.	{10, 17, 22, 24, 31, 33}	672.	{12, 14, 19, 43, 47, 50}
630.	{10, 17, 22, 24, 31, 43}	673.	{12, 15, 17, 27, 30, 34}
631.	{10, 17, 22, 26, 33, 47}	674.	{12, 15, 20, 23, 27, 30}
632.	{10, 17, 27, 34, 37, 46}	675.	{12, 15, 22, 28, 47, 53}
633.	{10, 17, 30, 37, 39, 44}	676.	{12, 15, 27, 37, 44, 46}
634.	{10, 17, 30, 37, 41, 44}	677.	{12, 15, 27, 46, 49, 54}
635.	{10, 17, 37, 39, 44, 46}	678.	{12, 16, 19, 23, 26, 31}
636.	{10, 18, 21, 27, 33, 38}	679.	{12, 16, 19, 29, 31, 36}
637.	{10, 19, 23, 30, 34, 51}	680.	{12, 16, 19, 29, 36, 45}
638.	{10, 19, 24, 26, 43, 47}	681.	{12, 16, 20, 29, 41, 53}
639.	{10, 19, 27, 34, 43, 50}	682.	{12, 17, 26, 30, 47, 51}
640.	{10, 19, 28, 35, 42, 49}	683.	{12, 17, 27, 30, 34, 39}
641.	{10, 21, 23, 28, 32, 35}	684.	{12, 17, 38, 43, 47, 50}
642.	{10, 21, 23, 30, 32, 51}	685.	{12, 18, 24, 31, 41, 51}
643.	{10, 21, 25, 28, 35, 46}	686.	{12, 19, 31, 33, 38, 40}
644.	{10, 21, 25, 32, 48, 51}	687.	{12, 19, 31, 40, 43, 50}
645.	{10, 21, 25, 32, 48, 53}	688.	{12, 19, 33, 36, 40, 47}
646.	{10, 21, 25, 46, 48, 53}	689.	{12, 19, 33, 38, 40, 47}
647.	{11, 14, 21, 24, 42, 45}	690.	{12, 27, 32, 34, 39, 41}
648.	{11, 14, 22, 25, 44, 49}	691.	{12, 27, 32, 41, 49, 54}
649.	{11, 14, 26, 28, 35, 45}	692.	{12, 27, 34, 37, 41, 46}
650.	{11, 14, 26, 45, 48, 53}	693.	{12, 27, 37, 41, 44, 46}
651.	{11, 16, 18, 22, 33, 51}	694.	{12, 29, 32, 41, 49, 54}
652.	{11, 16, 18, 22, 51, 53}	695.	{12, 29, 41, 44, 49, 54}
653.	{11, 16, 20, 22, 33, 51}	696.	{13, 15, 19, 24, 36, 54}
654.	{11, 16, 21, 30, 41, 52}	697.	{13, 16, 20, 37, 46, 53}
655.	{11, 16, 22, 37, 46, 53}	698.	{13, 16, 20, 46, 51, 53}
656.	{11, 17, 23, 26, 36, 46}	699.	{13, 16, 25, 30, 47, 52}
657.	{11, 22, 27, 29, 34, 36}	700.	{13, 17, 19, 24, 34, 36}
658.	{11, 22, 27, 29, 34, 50}	701.	{13, 17, 19, 24, 36, 54}
659.	{11, 22, 27, 31, 34, 50}	702.	{13, 17, 22, 41, 50, 54}
660.	{11, 22, 27, 36, 47, 54}	703.	{13, 18, 20, 32, 35, 39}
661.	{11, 24, 28, 33, 37, 40}	704.	{13, 18, 20, 35, 37, 46}
662.	{11, 24, 29, 47, 50, 54}	705.	{13, 18, 22, 33, 37, 46}
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707.	{13, 20, 23, 29, 34, 40}	750.	{16, 19, 23, 26, 28, 51}
708.	{13, 20, 32, 39, 42, 51}	751.	{16, 19, 23, 28, 42, 51}
709.	{13, 20, 35, 42, 44, 49}	752.	{16, 19, 27, 30, 35, 52}
710.	{13, 20, 35, 42, 46, 49}	753.	{16, 21, 23, 37, 40, 44}
711.	{13, 20, 42, 44, 49, 51}	754.	{16, 21, 23, 40, 42, 51}
712.	{13, 21, 24, 32, 38, 43}	755.	{16, 23, 26, 37, 44, 47}
713.	{13, 22, 25, 32, 39, 48}	756.	{16, 23, 26, 47, 49, 54}
714.	{13, 22, 33, 40, 47, 54}	757.	{16, 23, 40, 47, 49, 54}
715.	{13, 24, 26, 30, 37, 53}	758.	{16, 23, 40, 47, 51, 54}
716.	{13, 24, 28, 30, 37, 53}	759.	{17, 20, 25, 28, 33, 36}
717.	{13, 24, 28, 30, 51, 53}	760.	{17, 20, 25, 36, 38, 45}
718.	{13, 24, 30, 33, 40, 51}	761.	{17, 28, 33, 36, 48, 53}
719.	{14, 17, 28, 31, 50, 53}	762.	{17, 28, 36, 45, 48, 53}
720.	{14, 17, 31, 33, 40, 50}	763.	{17, 28, 36, 45, 50, 53}
721.	{14, 19, 24, 27, 35, 46}	764.	{17, 31, 33, 36, 40, 50}
722.	{14, 26, 28, 31, 35, 45}	765.	{17, 31, 36, 40, 43, 50}
723.	{14, 26, 31, 35, 38, 45}	766.	{17, 36, 38, 43, 45, 50}
724.	{14, 28, 31, 43, 48, 53}	767.	{18, 20, 23, 27, 30, 53}
725.	{14, 31, 33, 38, 40, 45}	768.	{18, 21, 23, 37, 40, 44}
726.	{14, 31, 40, 43, 48, 53}	769.	{18, 21, 26, 29, 34, 37}
727.	{14, 31, 40, 45, 48, 53}	770.	{18, 21, 26, 37, 47, 54}
728.	{15, 17, 20, 25, 48, 52}	771.	{18, 23, 27, 30, 48, 53}
729.	{15, 17, 22, 25, 48, 52}	772.	{18, 23, 27, 31, 36, 40}
730.	{15, 17, 22, 41, 50, 52}	773.	{18, 23, 37, 40, 44, 49}
731.	{15, 18, 20, 32, 35, 39}	774.	{18, 26, 37, 44, 47, 51}
732.	{15, 18, 29, 32, 51, 54}	775.	{18, 26, 37, 47, 51, 54}
733.	{15, 18, 32, 42, 49, 51}	776.	{18, 29, 34, 37, 42, 51}
734.	{15, 19, 22, 34, 36, 41}	777.	{18, 29, 34, 39, 42, 51}
735.	{15, 19, 22, 34, 41, 50}	778.	{18, 29, 34, 39, 51, 54}
736.	{15, 19, 23, 28, 34, 46}	779.	{18, 37, 42, 44, 49, 51}
737.	{15, 20, 25, 43, 48, 52}	780.	{19, 22, 27, 32, 35, 40}
738.	{15, 20, 26, 31, 35, 52}	781.	{20, 23, 30, 33, 38, 41}
739.	{15, 20, 32, 35, 39, 44}	782.	{20, 23, 30, 41, 43, 50}
740.	{15, 22, 25, 36, 45, 48}	783.	{20, 25, 28, 33, 41, 50}
741.	{15, 22, 36, 38, 43, 45}	784.	{20, 25, 36, 38, 41, 45}
742.	{15, 22, 38, 41, 45, 52}	785.	{20, 25, 36, 41, 45, 48}
743.	{15, 22, 38, 43, 45, 52}	786.	{20, 25, 41, 43, 48, 50}
744.	{15, 29, 32, 37, 46, 54}	787.	{20, 28, 33, 38, 41, 53}
745.	{15, 29, 34, 37, 46, 54}	788.	{20, 28, 33, 41, 50, 53}
746.	{15, 29, 34, 46, 49, 54}	789.	{21, 24, 29, 31, 42, 52}
747.	{15, 32, 37, 39, 44, 46}	790.	{21, 24, 31, 34, 39, 42}
748.	{15, 32, 39, 42, 46, 51}	791.	{21, 26, 29, 31, 42, 52}
749.	{15, 32, 42, 46, 49, 51}	792.	{21, 26, 29, 34, 39, 44}

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