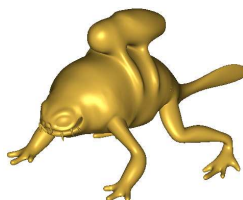
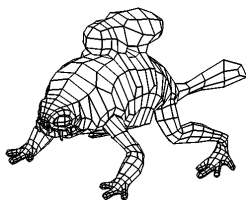


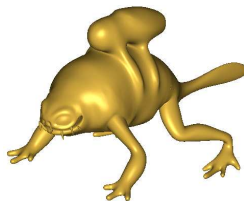
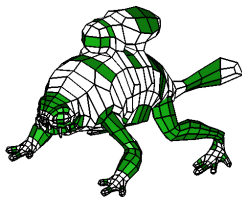
On Smooth Bicubic Surfaces from Quad Meshes

Jianhua Fan, Jörg Peters

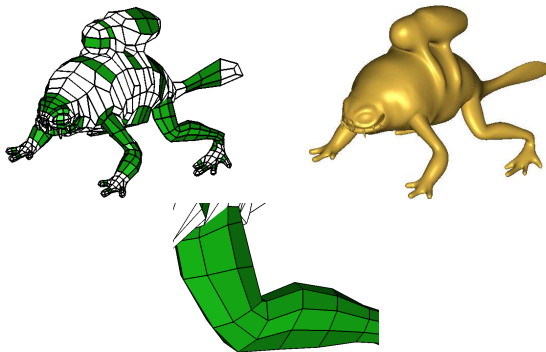
Dec 08



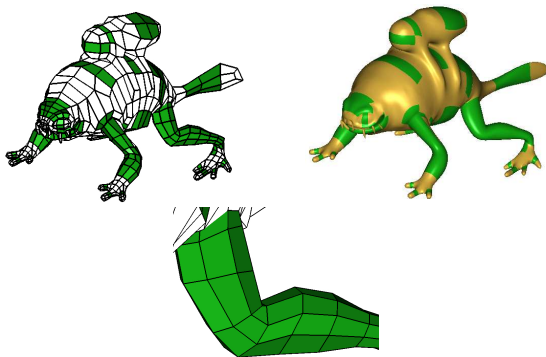
Ordinary Quads



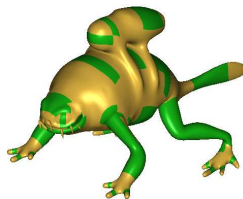
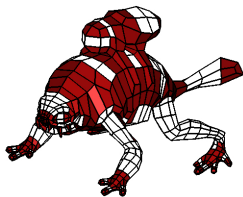
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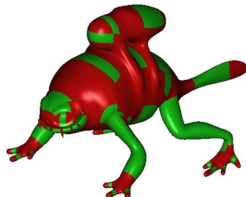
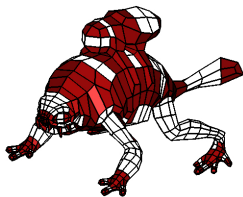
Ordinary Quads



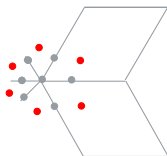
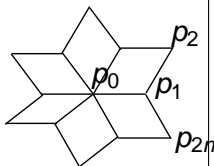
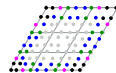
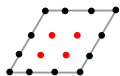
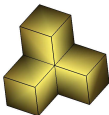
Extraordinary Quads



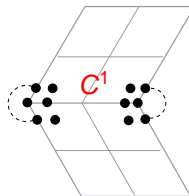
Extraordinary Quads



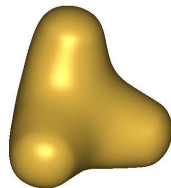
G^1 Bi-3 construction



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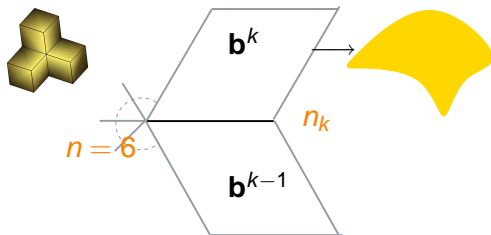


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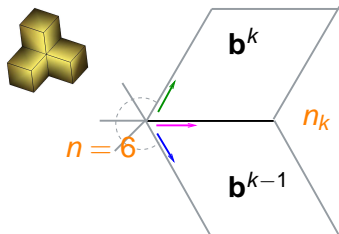


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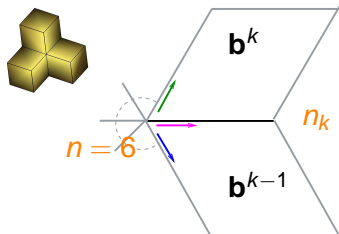
G^1 Bi-3 construction



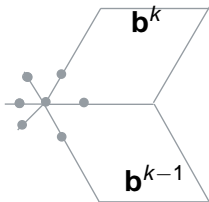
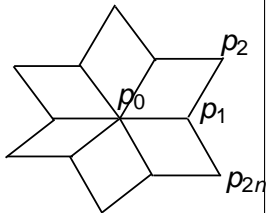
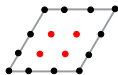
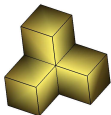
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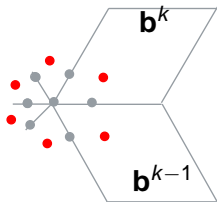
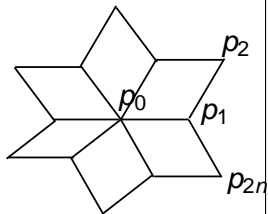
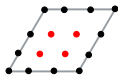
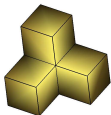


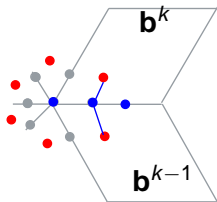
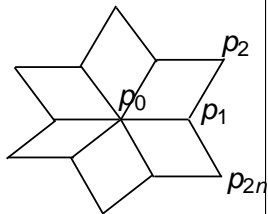
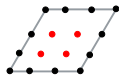
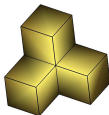
G^1 Bi-3 construction

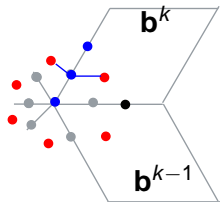
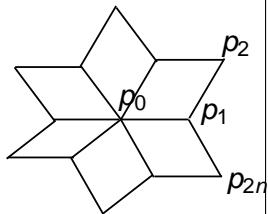
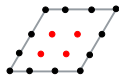
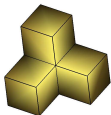


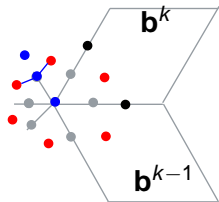
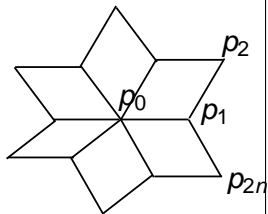
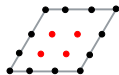
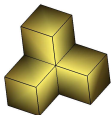
$$\frac{\partial}{\partial v} \mathbf{b}^k(u, 0) + \frac{\partial}{\partial w} \mathbf{b}^{k-1}(0, u) = \alpha(u) \frac{\partial}{\partial u} \mathbf{b}^k(u, 0)$$

1×1 

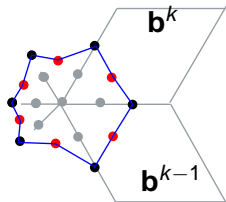
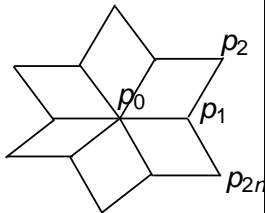
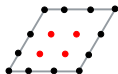
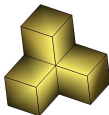
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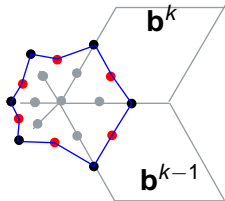
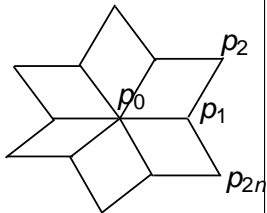
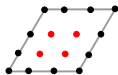
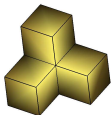
1×1 

1×1 

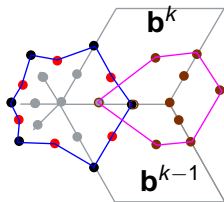
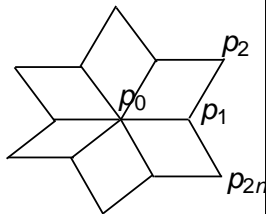
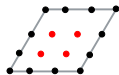
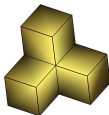
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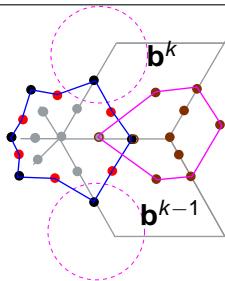
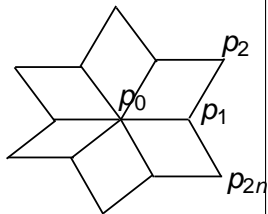
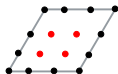
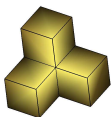
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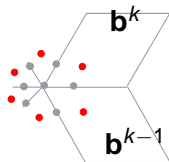
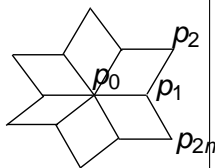
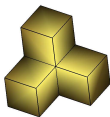


1×1 

Vertex Enclosure

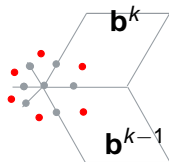
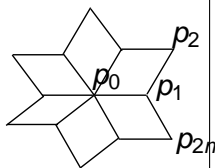
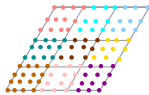
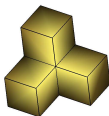
1×1 

1×1 

1×1 

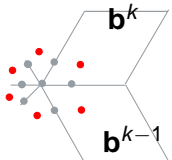
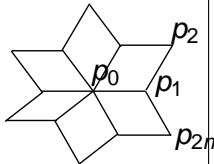
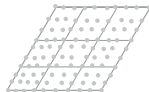
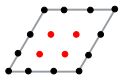
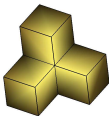
NOT LOCAL

3 × 3

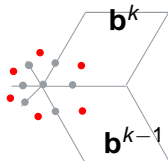
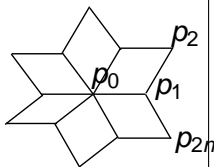
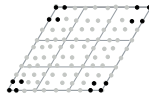
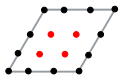
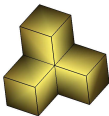


NOT LOCAL

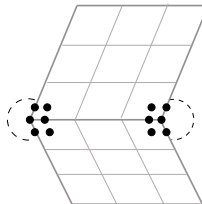
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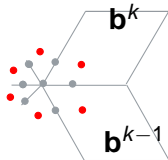
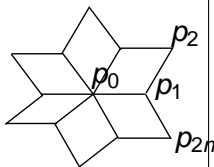
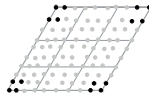
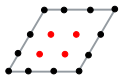
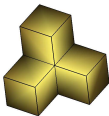
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3×3 

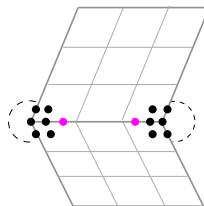
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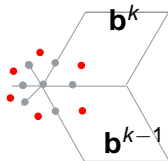
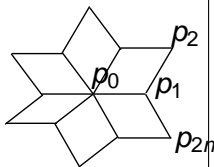
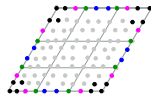
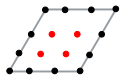
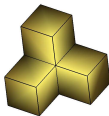
3 × 3



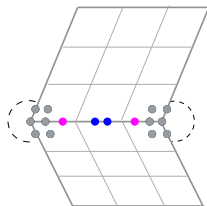
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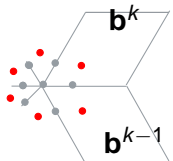
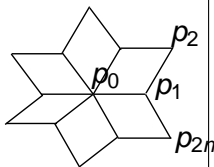
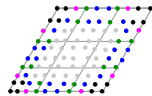
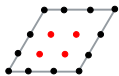
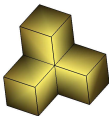


Vertex Enclosure

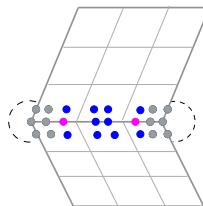
3×3 

NOT LOCAL

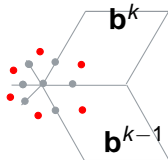
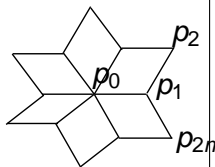
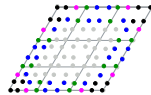
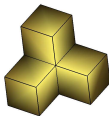
Vertex Enclosure + C^1

3×3 

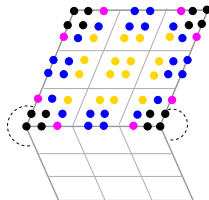
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LOCAL

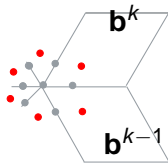
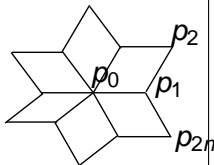
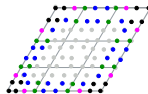
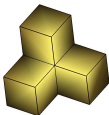
3×3 

NOT LOCAL

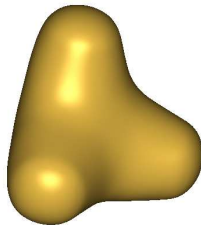


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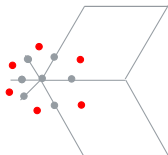
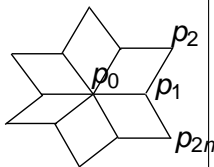
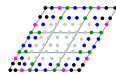
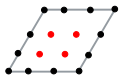
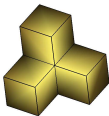
3 × 3



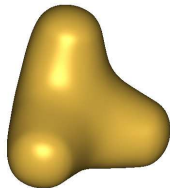
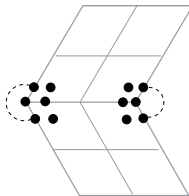
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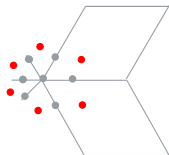
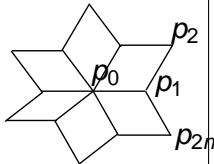
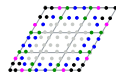
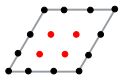
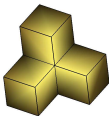
LOCAL

2×2 

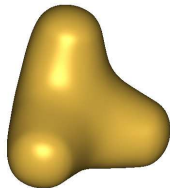
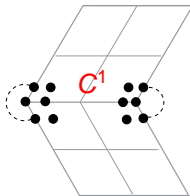
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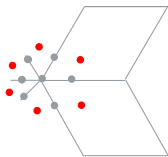
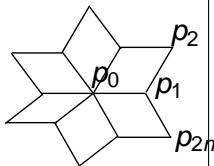
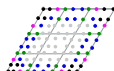
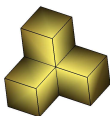
LOCAL

2×2 

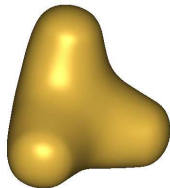
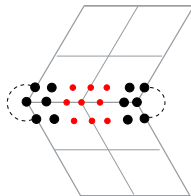
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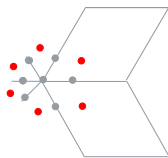
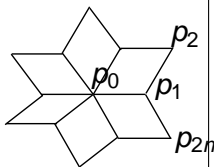
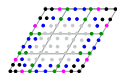
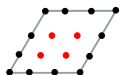
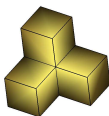
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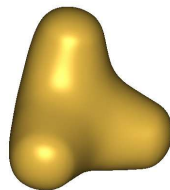
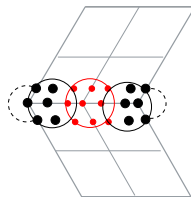
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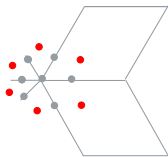
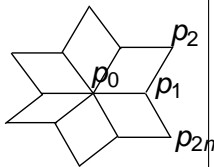
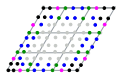
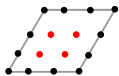
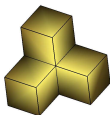
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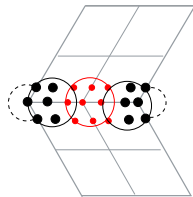
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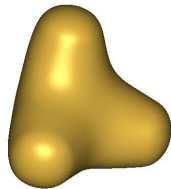
LOCAL



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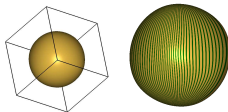


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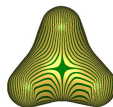
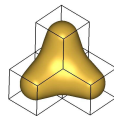
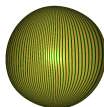
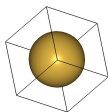


LOCAL

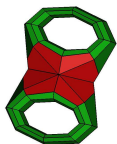
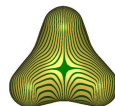
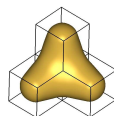
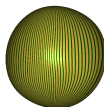
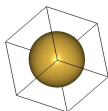
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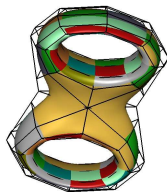
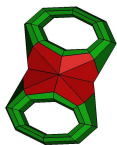
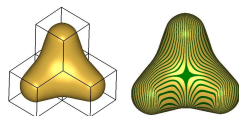
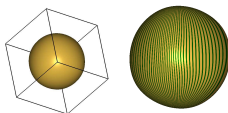
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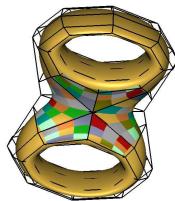
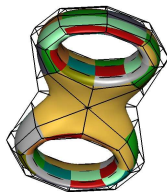
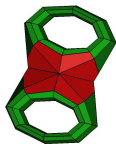
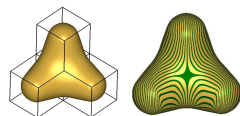
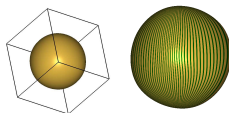


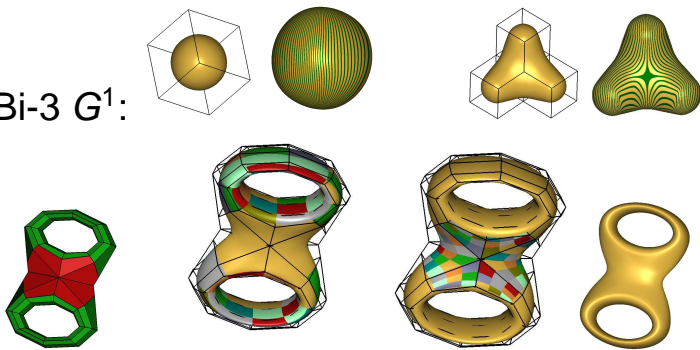
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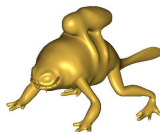
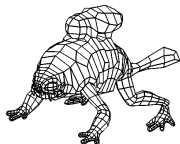
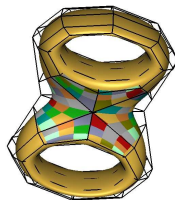
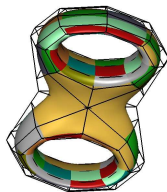
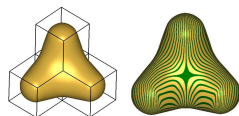
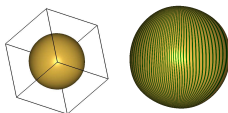


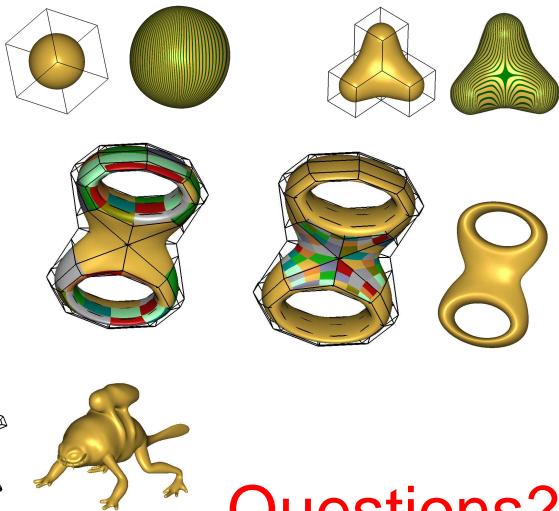
Bi-3 G^1 :



Bi-3 G^1 :

Bi-3 G^1 :

Bi-3 G^1 :

Bi-3 G^1 :

Questions?