

**The schedule of "Image-based Modeling and Rendering" 2006/9**

Date	Content	Notes
9/12, 9/15	<b>Introduction</b>	
9/19, 9/22	<b>Introduction &amp; fundamental</b> <ul style="list-style-type: none"> <li>■ What's IBMR?</li> <li>■ Image warping</li> </ul>	
9/26, 9/29	<b>Images (I): Warping &amp; Morphing</b> <ul style="list-style-type: none"> <li>■ T. Beier, S. Neely, "Feature Based Image Metamorphosis," Proc. SIGGRAPH'92, pp. 35-42, 1992.</li> <li>■ S. M. Seitz, C. R. Dyer, "View Morphing", Proc. SIGGRAPH 96, pp. 21-30.</li> </ul>	
10/3, 10/6	<b>Images (II): Environment mapping &amp; mosaic</b> <ul style="list-style-type: none"> <li>■ Environment mapping</li> <li>■ E. Chen, "QuickTime VR: an image-based approach to virtual environment navigation", SIGGRAPH '95, p.29-38, Sept.1995.</li> </ul>	
10/10, 10/13	<ul style="list-style-type: none"> <li>■ L. McMillan , G. Bishop, "Plenoptic modeling: an image-based rendering system", Proc. SIGGRAPH'95, pp.39-46.</li> </ul>	
10/17, 10/20	<b>Light field rendering &amp; Lumigraph</b> <ul style="list-style-type: none"> <li>■ M. Levoy, P. Hanrahan, "Light Field Rendering", Proc. SIGGRAPH'96, pp.31 - 42, 1996.</li> <li>■ S. J. Gortler, R. Grzeszczuk, R. Szeliski, M.F. Cohen, "The Lumigraph", Proc. SIGGRAPH 96, pp.43 - 54, 1996.</li> </ul>	
10/24, 10/27	<b>Depth images: Sprites &amp; LDI</b> <ul style="list-style-type: none"> <li>■ Y. Horry, K. Aanjyo, K. Arai, "Tour into the picture: Using a spidery mesh interface to make animation from a single image", Proc. SIGGRAPH 97, pp.225–232, 1997.</li> <li>■ J. Shade , S. Gortler , L.-W. He , R. Szeliski, "Layered depth images", Proc. SIGGRAPH'98, p.231-242, July 1998.</li> </ul>	
10/30, 11/3	<b>Modeling: Stereo, Visual Hull, Hybrid approaches</b> <ul style="list-style-type: none"> <li>■ Basic Stereo modeling &amp; 3D scanning concepts</li> <li>■ P.E. Debevec, C.J. Taylor, J. Malik, "Modeling and Rendering Architecture from Photographs: A Hybrid Geometry- and Image-Based Approach", Proc.SIGGRAPH'96, pp. 11-20.</li> </ul>	
11/7, 11/10	<ul style="list-style-type: none"> <li>■ W. Matusik, C. Buehler, R. Raskar, S. Gortler, L. McMillan, "Image-based visual hulls", Proc. SIGGRAPH'00, pp.369–374.</li> <li>■ <b>Quiz</b></li> </ul>	
11/14, 11/17	<b>Advanced topics in IBMR</b> <ul style="list-style-type: none"> <li>■ Basic image data compression</li> <li>■ <i>Paper presentation x 2</i></li> </ul>	
11/21, 11/24	<ul style="list-style-type: none"> <li>■ D.N. Wood, D.I. Azuma, K.Aldinger, B. Curless, T. Duchamp, D.H. Salesin, W. Stuetzle, "Surface light</li> </ul>	

	fields for 3D photography", Proc. SIGGRAPH'00, pages: 287 - 296, 2000. ■ <a href="#">Paper presentation x 2</a>	
12/5, 12/8	■ Image-based facial animation ■ <a href="#">Paper presentation x 2</a>	
12/12, 12/15	■ J. Carranza, C. Theobalt, M. A. Magnor, H.-P. Seidel, "Free-Viewpoint Video of Human Actors", Proc. SIGGRAPH'03, pp.569-577 ■ <a href="#">Paper presentation x 2</a>	
12/19, 12/22	■ P.E. Debevec. "Rendering Synthetic Objects into Real Scenes: Bridging Traditional and Image-Based Graphics with Global Illumination and High Dynamic Range Photography", Proc. SIGGRAPH'98, pp.189-198. ■ <a href="#">Paper presentation x 1</a>	
12/26, 12/29	■ E.A. Khan, E. Reinhard, R. Fleming, H. Buelthoff, "Image-based Material Editing", Proc. SIGGRAPH'06 ■ X. Tong, J. Zhang, L. Liu, X. Wang, B. Guo H.-Y. Shum, "Synthesis of Bidirectional Texture Functions on Arbitrary Surfaces", Proc. SIGGRAPH'02.	
1/2, 1/5	■ <b>Quiz</b> ■ <a href="#">Project Presentation &amp; Demo</a>	
1/9, 1/12	■ <a href="#">Project Presentation &amp; Demo</a>	

1. D.Ruprecht, H.Muller, "Image Warping with Scattered Data Interpolation", IEEE CG&A, 15(2):37-43, 1995. (& Intro. To RBF)
2. H. Shum, and L. He, "Rendering with Concentric Mosaics," Proc. SIGGRAPH'99.
3. R. Szeliski, H. Shum, "Creating Full View Panoramic Image Mosaics and Environment Maps," Proc. SIGGRAPH, 1997.
4. A. Agarwala, K.C.Zheng, C.Pal, etal. "Panoramic Video Textures", Proc. SIGGRAPH'05, pp.821-827.
5. C.-F Chang, G.Bishop,A.Lastra, "LDI tree: hierarchical representation for image-based rendering", Proc. SIGGRAPH'99, pp.291-298.
6. M. Oliveira, G. Bishop, D. McAllister, "Relief Texture Mapping", Proc. SIGGRAPH'00.
7. W.-C. Chen, J.-Y. Bouguet, M.H. Chu, R. Grzeszczuk, "Light Field Mapping: Efficient Representation and Hardware Rendering of Surface Light Fields", Proc. SIGGRAPH'02, pp.447-456.
8. S.Rusinkiewicz, O.Hall-Holt, M.Levoy, "Real-time 3D model acquisition", Proc. SIGGRAPH'02, pp.438-446.
9. W. Matusik, H. Pfister, A. Ngan, P. Beardsley, R. Ziegler, L. McMillan. "Image-based 3D Photography using Opacity Hulls." Proc. SIGGRAPH'02.
10. B.M.Oh, M. Chen, J. Dorsey, F. Durand, "Image-based modeling and photo editing". Proc. SIGGRAPH'01, pp. 433– 442.

11. L. Wang, X. Wang, X. Tong, S. Lin, S. Hu, B. Guo, H.-Y. Shum, "View-Dependent Displacement Mapping", Proc. SIGGRAPH'03.
12. L. Quan, P. Tan, G. Zeng, L. Yuan, J. Wang, "Image-based Plant Modeling", Proc. SIGGRAPH'06.
13. Y. Yu, P. Debevec, J. Malik, T. Hawkins, "Inverse Global Illumination: Recovering Reflectance Models of Real Scenes From Photographs", Proc. SIGGRAPH'99, pp. 215-224.
14. C.L. Zitnick, S.B. Kang, M. Uyttendaele, S. Winder R. Szeliski, "High-quality video view interpolation using a layered representation", Proc. SIGGRAPH'04.