Meeting: 1002, Pittsburgh, Pennsylvania, SS 15A, Special Session on PDE-Based Methods in Imaging and Vision

1002-35-136 **Wei Zhu*** (wzhu@cims.nyu.edu), Courant Institute of Mathematical Sciences, 251 Mercer Street, New York, NY 10012, **Tony Chan** (TonyC@college.ucla.edu), Department of Mathematics, University of California, Los Angeles, 405 Hilgard Ave, Los Angeles, CA 90095, and **Selim Esedoglu** (esedoglu@math.ucla.edu), Department of Mathematics, University of California, Los Angeles, 405 Hilgard Ave, Los Angeles, CA 90095. *Image denoising using mean curvature information.*

We propose a new variational model for image denoising, which employs mean curvature information of the surface $(x, f(x))$ defined by a given image $f : \Omega \to R^1$. Besides removing noise efficiently and preserving edges of objects, our method can also keep corners of objects as well as intensity contrasts of images. We compare our method with other related ones including the total variation method. (Received September 12, 2004)