CCD Review

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August 31, 2011

Contents

1 STARTED related work

the references are relative old and incomplete. Some other important methods, such as ASM, AAM, are not mentioned. => could you find paper and include them into the paper? We shall probably also check this years's ICCV and see if there is some similar algorithms http://www.iccv2011.org/program/accepted-papers

1.1 ICCV 2011 related work

1. A 3D Laplacian-Driven Parametric Deformable Model

2. Segmentation from a box

3. From Contours to 3D Object Detection and Pose Estimation

4. Semantic Contours from Inverse Detectors

5. Shared Shape Spaces

2   STARTED supplement video

[1] For the supplementary video, the authors only show the result of one regular object (a book) on a clear background. It would be better to show some results under the clutter, partial occlusions and illumination changes conditions, since the authors have claimed that the proposed method is robust against these conditions. => can you make another video for the conference with all the objects and scenes that you played with?

3   yellowSTARTED Performance measurement

[2] There is no description of how fast their method runs: e.g. 30 fps or more than 30 fps ? => we shall make clearer that this is in Table II

4   DONE Fig.3

Fig.3 is hard to see, because the characters in this figure are very small. => Can you improve, enlarge fonts?

1 I am still thinking which method is suitable for do the comparison, because I do not think snake is a very practical method

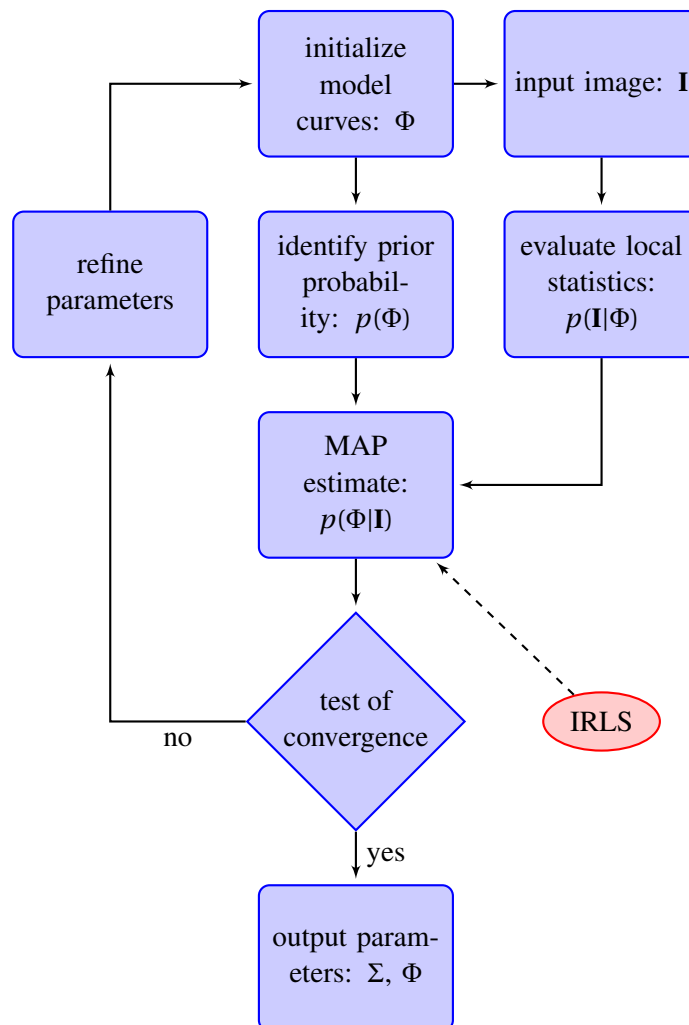2 the command to run the video is: rosbag play -s 5 -r 0.004 kalman.bag, I shall check the fps parameters

```
                    ┌─────────────┐      ┌──────────────┐
                    │  initialize │      │              │
                    │    model    │─────▶│input image: I│
                    │  curves: Φ  │      │              │
                    └─────────────┘      └──────────────┘
                           │                    │
                           ▼                    ▼
┌──────────┐        ┌─────────────┐      ┌──────────────┐
│          │        │identify prior│      │evaluate local│
│  refine  │        │  probabil-  │      │  statistics: │
│parameters│        │ ity:  p(Φ)  │      │    p(I|Φ)    │
└──────────┘        └─────────────┘      └──────────────┘
```

identify prior probability: $p(\Phi)$

evaluate local statistics: $p(\mathbf{I}|\Phi)$

MAP estimate: $p(\Phi|\mathbf{I})$

refine parameters

initialize model curves: Φ

input image: $\mathbf{I}$

test of convergence

no

yes

IRLS

output parameters: Σ, Φ

5   TODO performance

I doubt the performance of the proposed method, because the background in the demo video is not cluttered at all, that is, very easy situation (white table). => with the longer video as stated above this will get clearer

6   TODO

In that case, how do you know if it really converges to the object and not to something else if you don't use knowledge about the object in the initial local statistics? => we shall make clearer how much we displaced the initial guess (with e.g. a heatmap of initial curves)