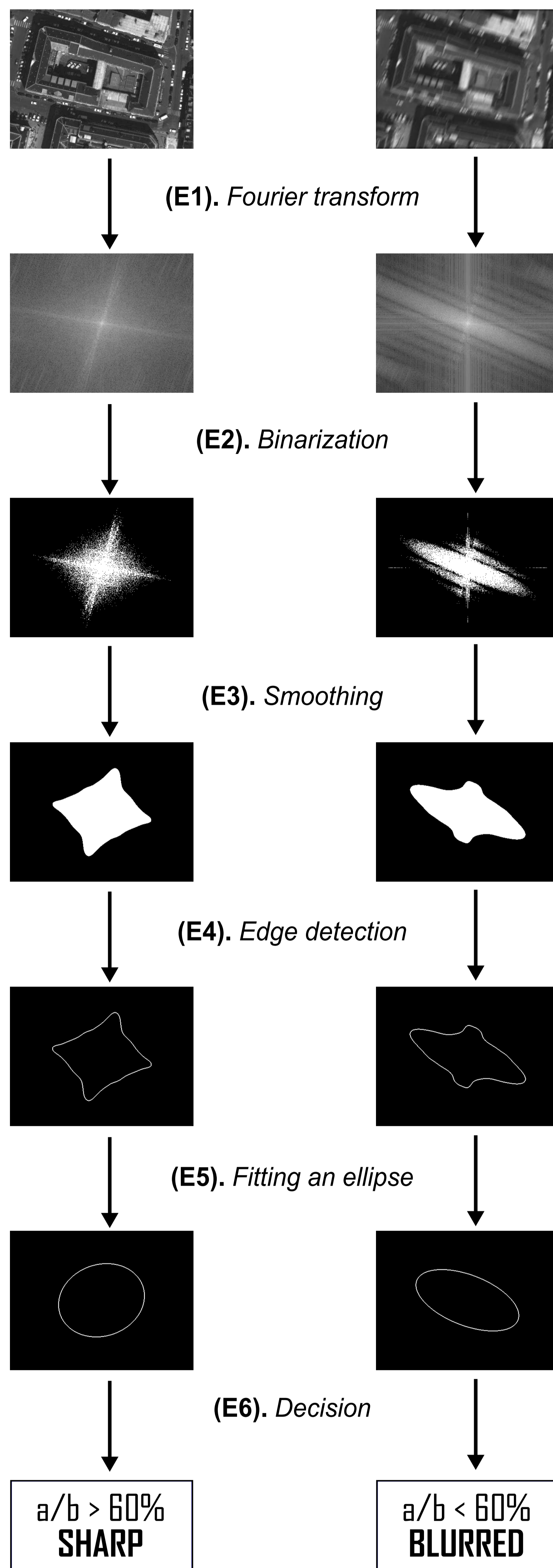


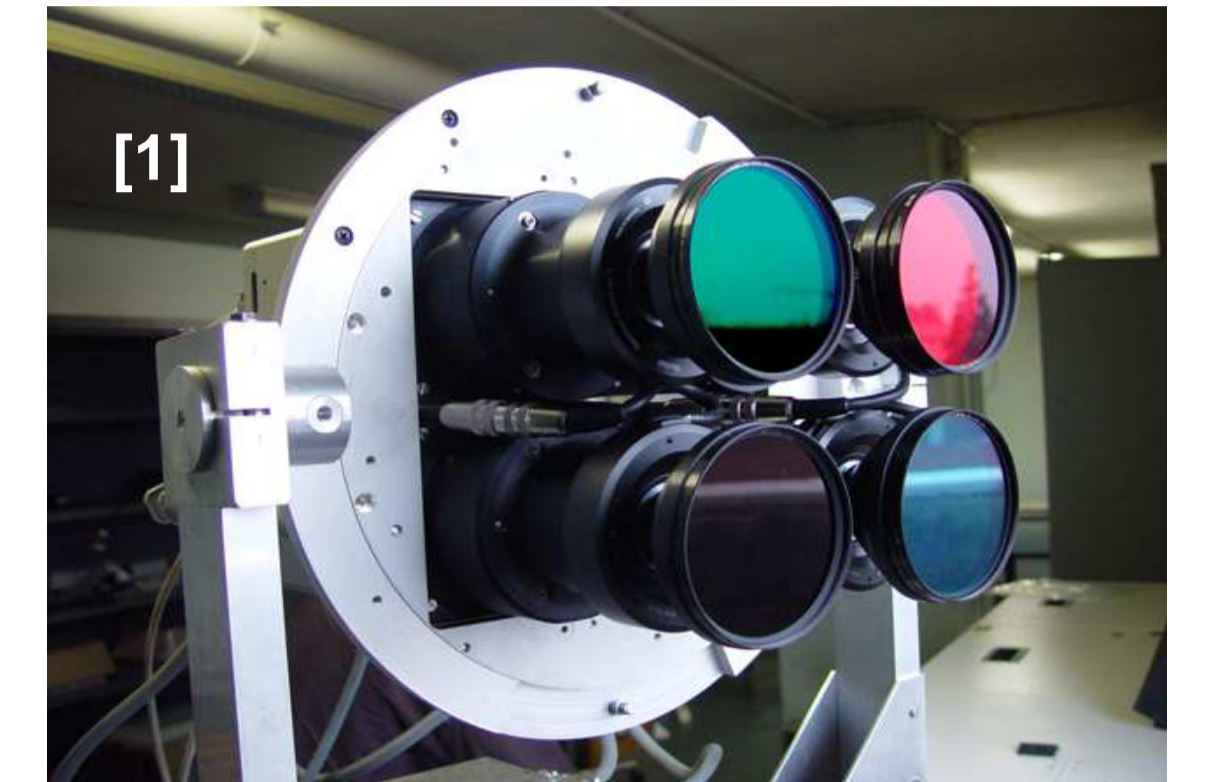
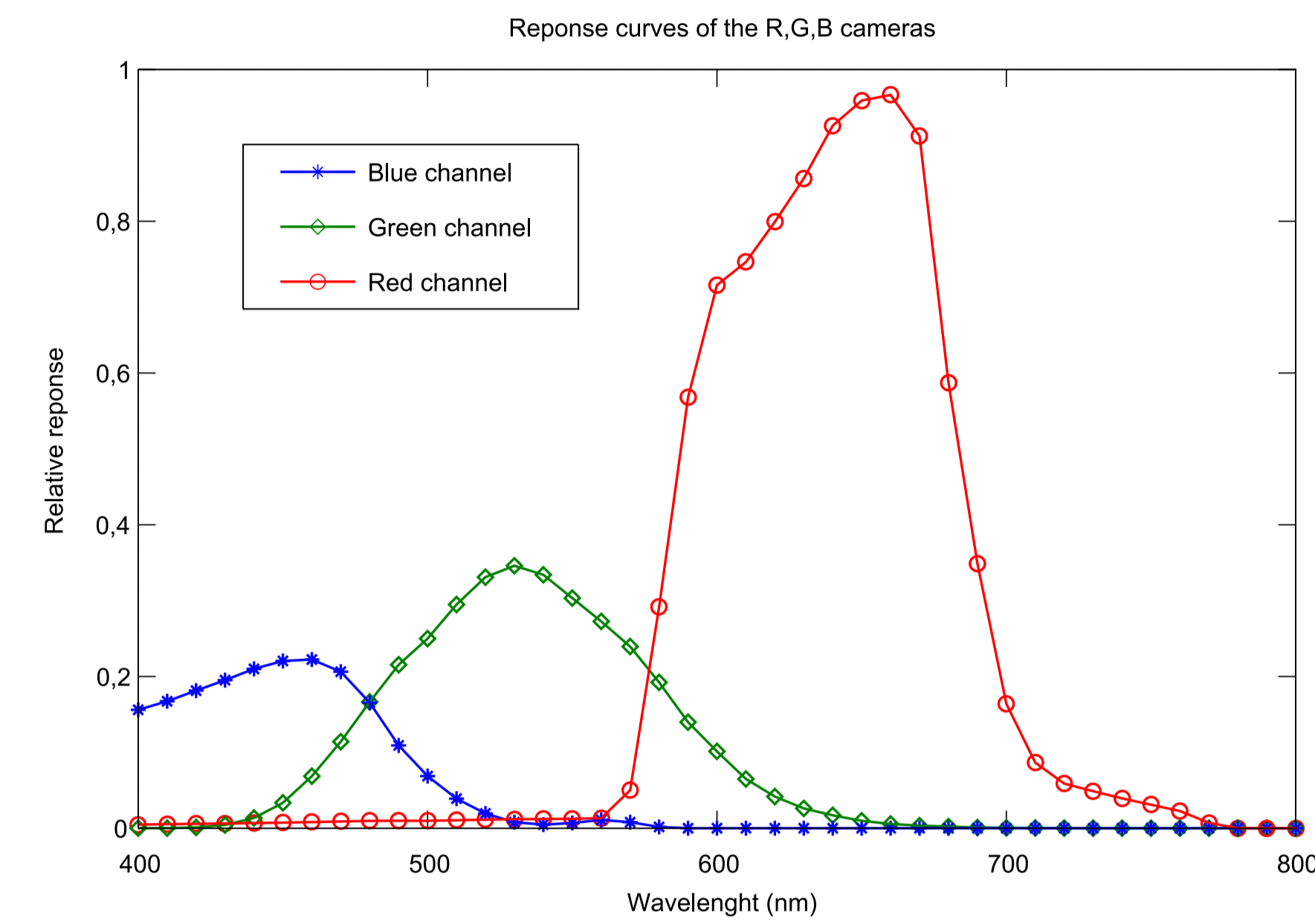
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Mono-Channel Approach



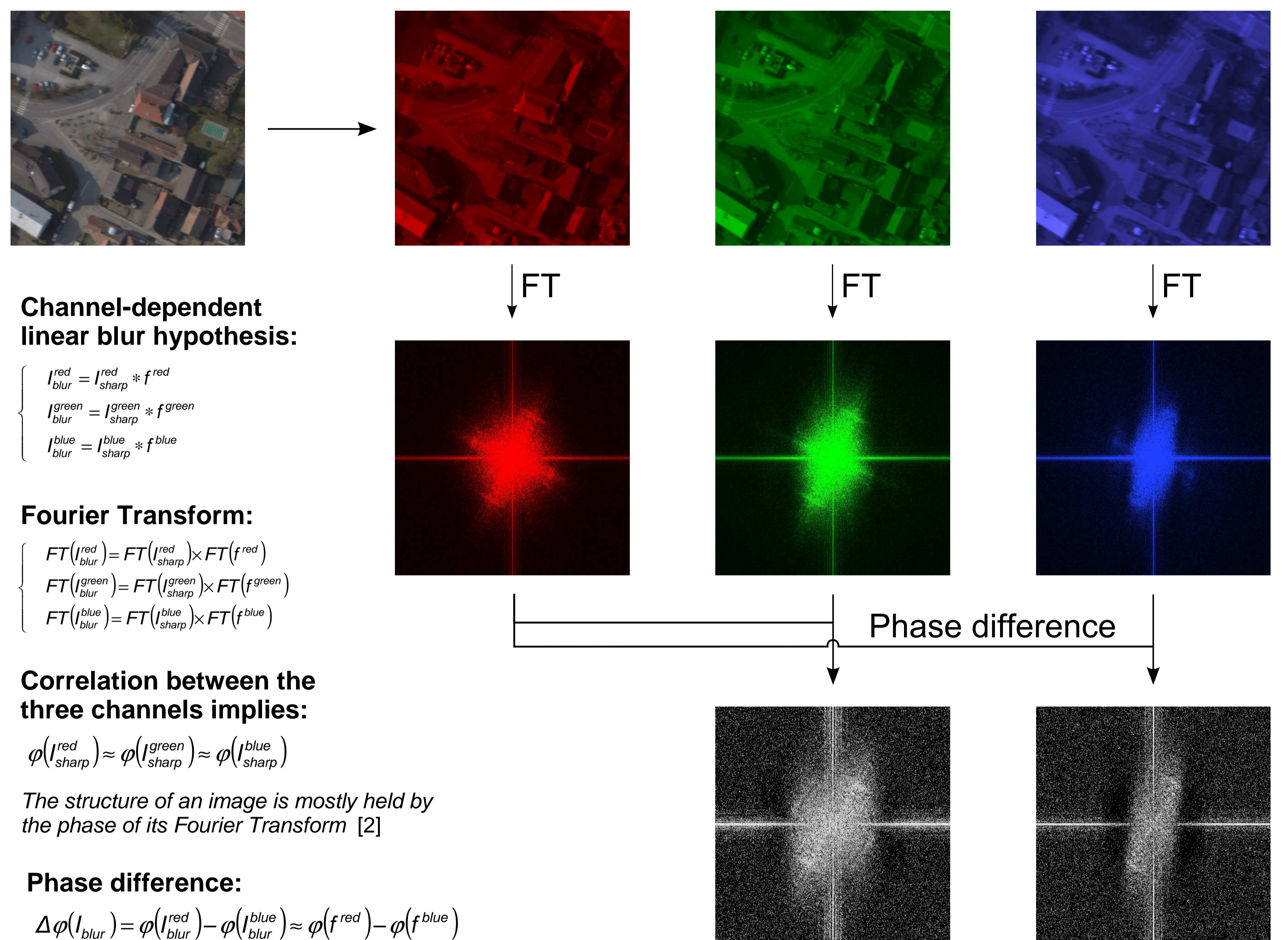
Data Acquisition & Context



Channel	Red	Green	Blue
Aperture	f/8,0	f/5,6	f/5,6
Exposure time	8,0 ms	15,2 ms	28,0 ms

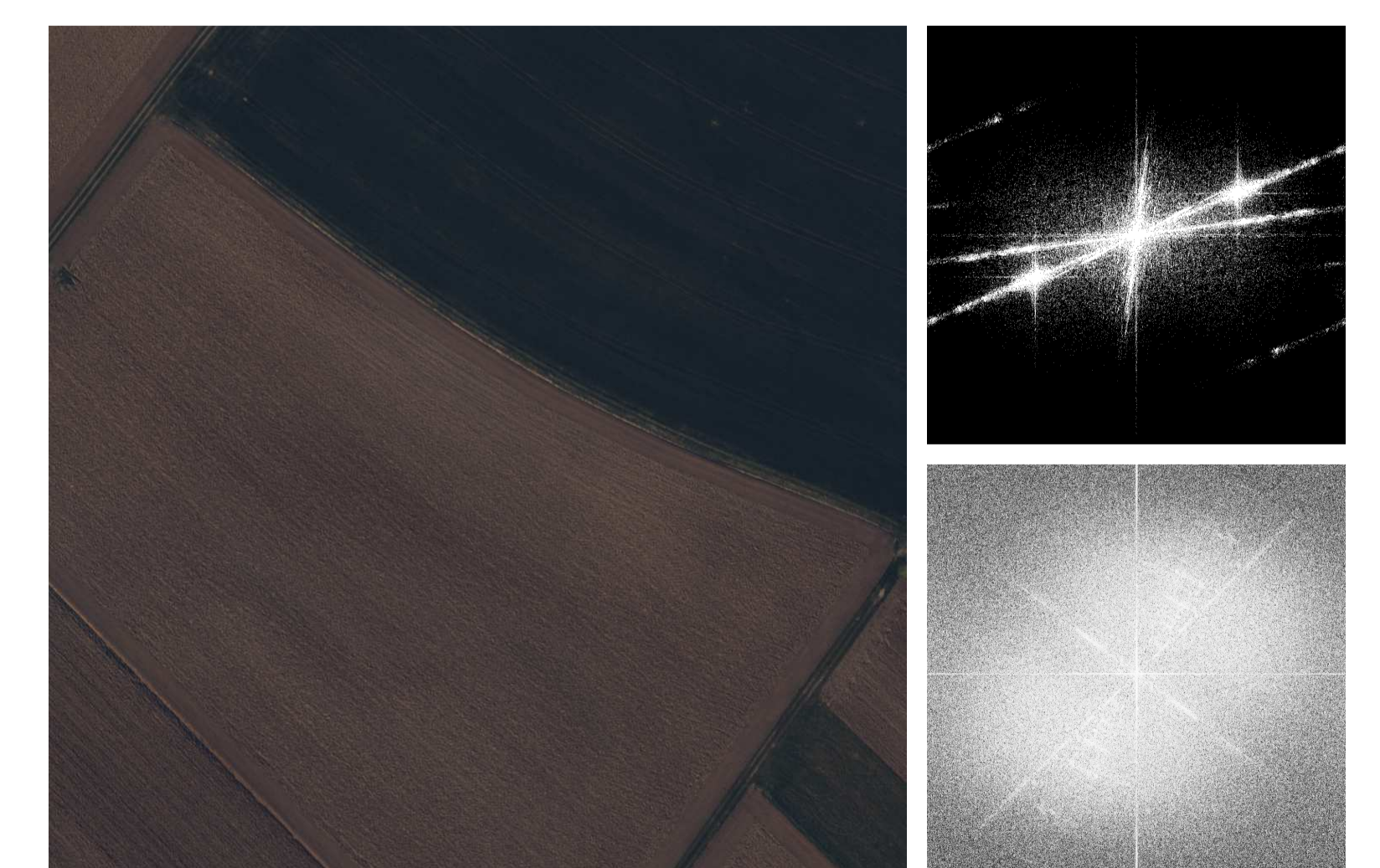
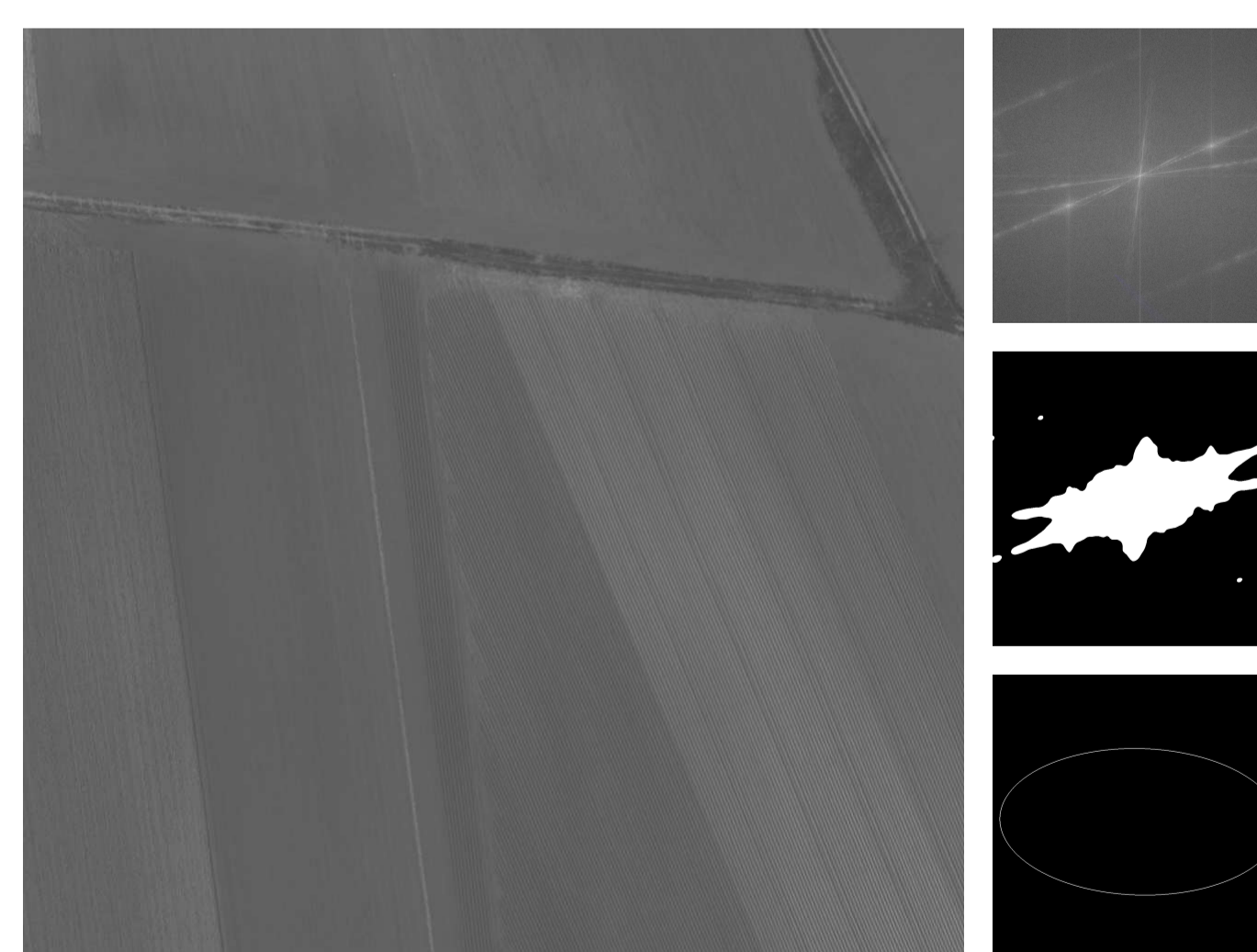
CHANNEL DEPENDENT EXPOSURE TIME \Rightarrow CHANNEL DEPENDENT BLUR

Multi-Channels Approach



Results

		HUMAN OPERATOR			
		Sharp	Blurred	Unclassified	TOTAL
A U T O M A T I C	Sharp	1280 64,00 %	0 0,00 %	514 25,70 %	1797 89,85 %
	Dubious	25 1,25 %	10 0,50 %	48 2,40 %	83 4,15 %
	Blurred	1 0,05 %	81 4,05 %	32 1,60 %	114 5,70 %
	Unclassified	0 0,00 %	6 0,30 %	0 0 %	6 0,30 %
	TOTAL	1309 65,45 %	97 4,85 %	594 29,70 %	2000 100,00 %



References

- [1] CAMNU, 2005, a description of IGN digital camera (accessed 28 May 2010) : <http://recherche.ign.fr/LOEMI/AR/CAMNU/>
[2] A.V. Oppenheim, J.S. Lim, 1981, The Importance of Phase in Signals, Proceedings of the IEEE, vol. 69, n°5, pp. 529-541

Conclusions

- > Detection based on a quite simple method
- > Advantage of channel-dependent exposure time
- > Reliable even on images with high periodicity
- > Successful validation on 2000 aerial images