

# Milestones – Turning Points

A few introductory comments

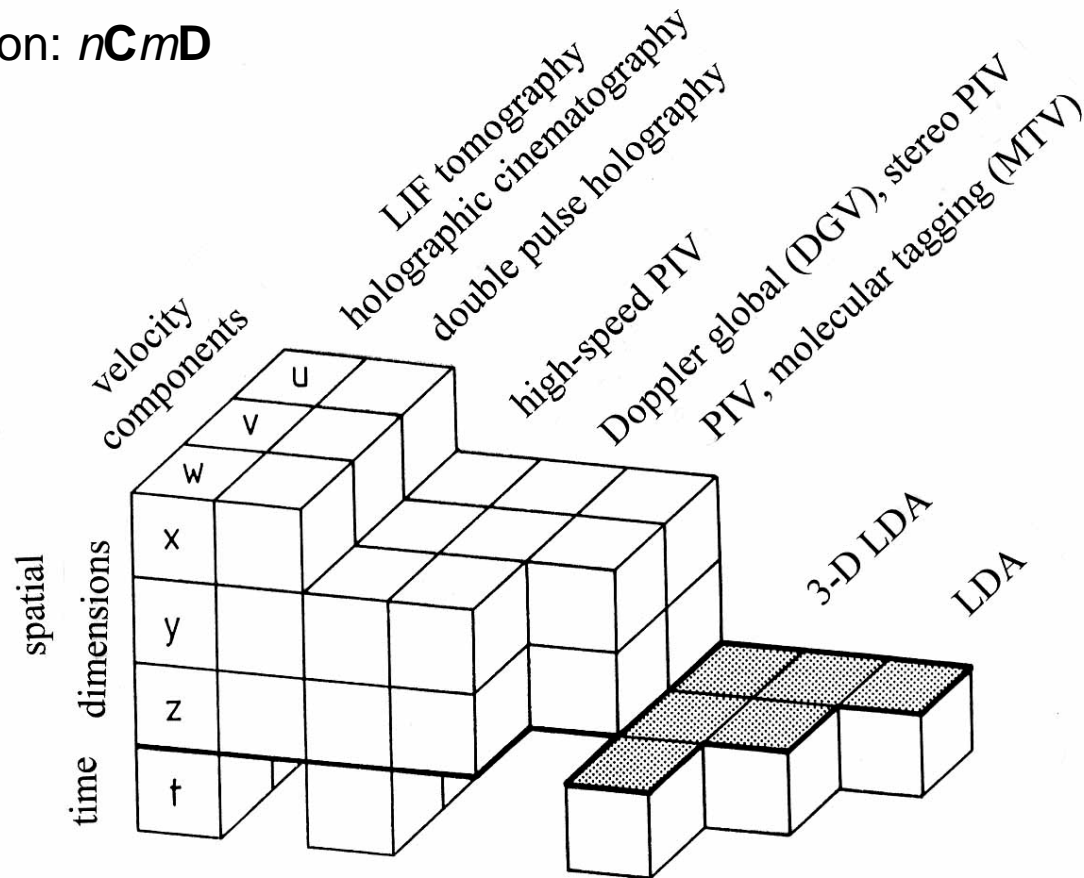
K.D. Hinsch

# Milestones in PIV

## Example

A permanent issue in flow velocimetry: New components/dimensions

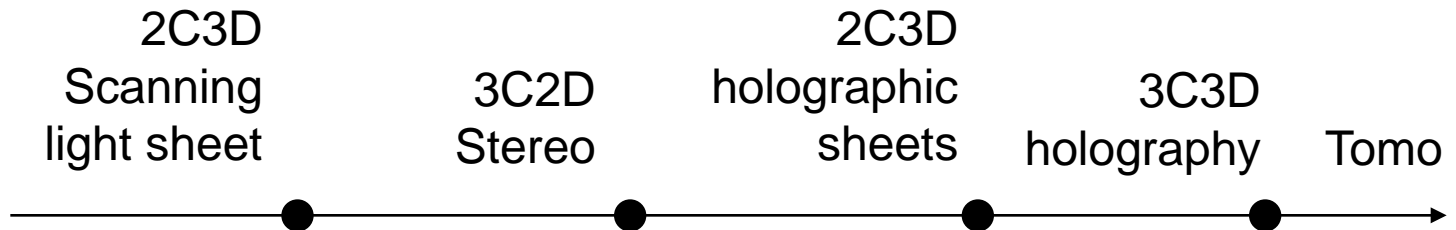
Classification:  $n\mathbf{C}m\mathbf{D}$



# Milestones in PIV

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## New components/dimensions



### Criteria:

Innovative approach  
successful implementation...

# Turning Points in PIV

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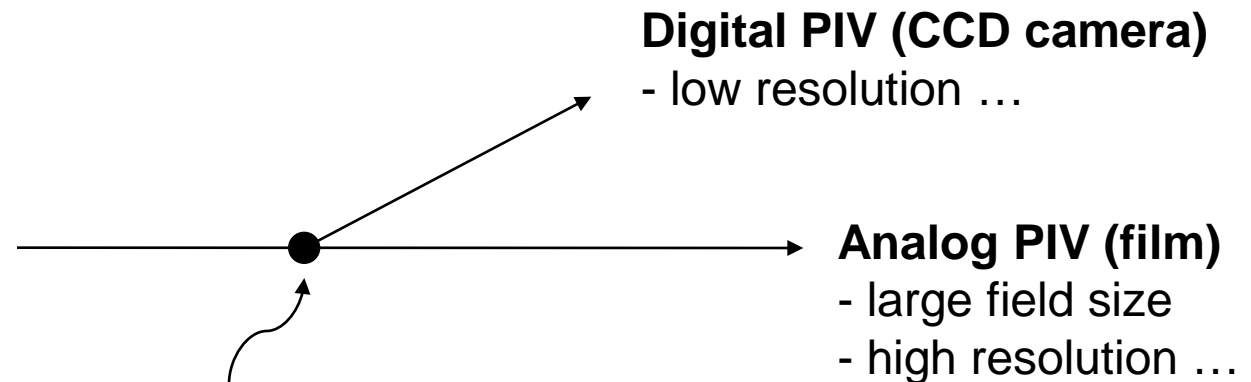
## VERSION 1

A new technique comes up while the old still survives

Both methods compete for a while

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### Example 1



### **Aspects in decision making**

Continue a well established path

Challenge of the new

Overestimate of problems in the new

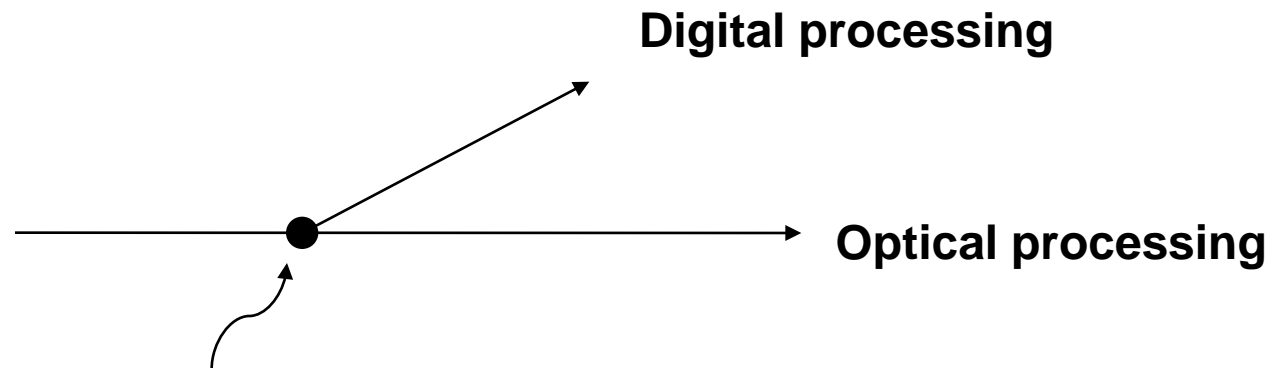
Time to acquire new competence

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## Example 2

# Processing of classical PIV transparencies

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### Aspects in decision making

What will be the future of computing (photon/electron)?

Background/commitment of researcher:

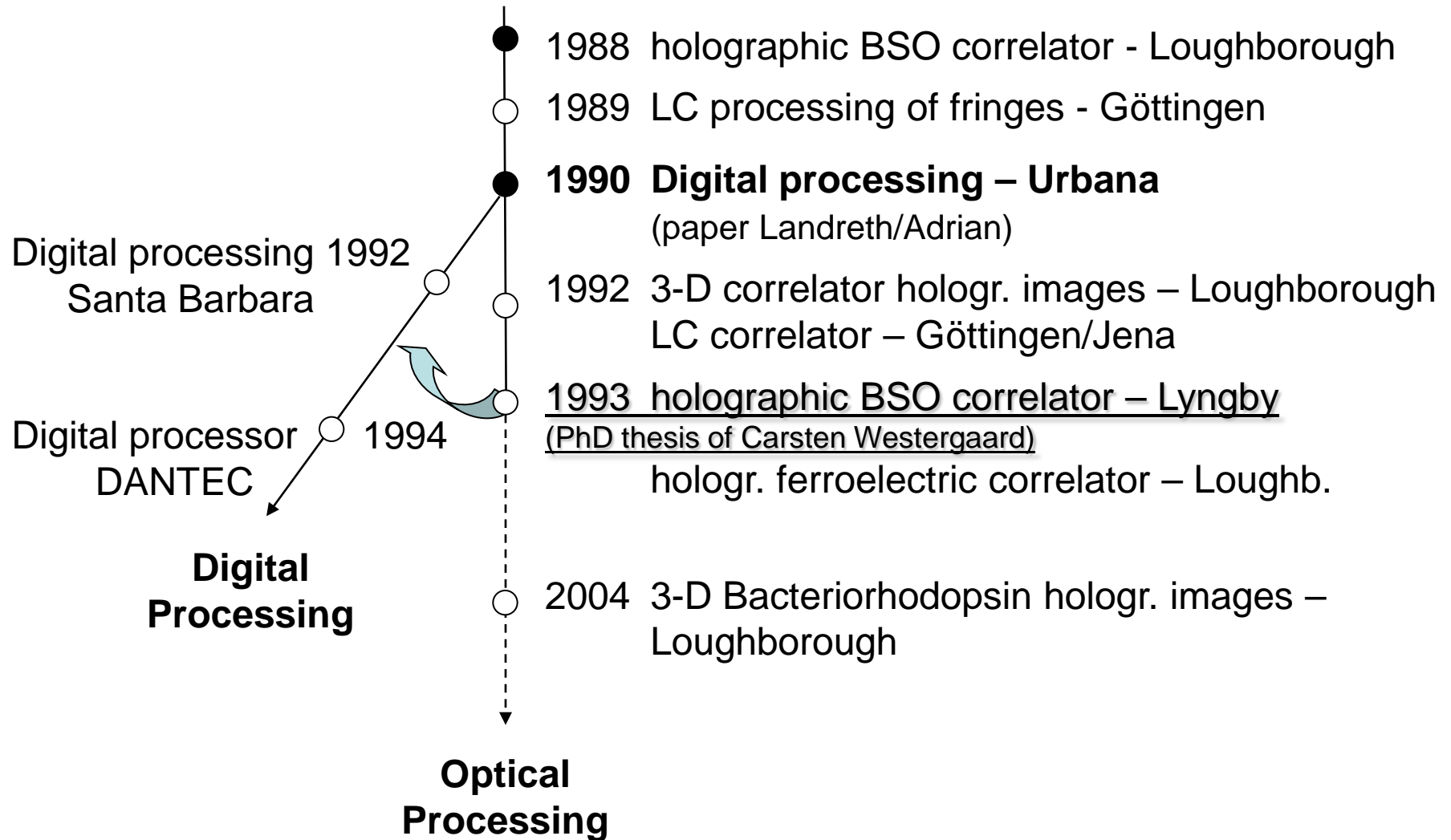
- optics
- practical engineering application

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# Turning point: Digital processing

The story of optical correlation

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# Turning Points in PIV

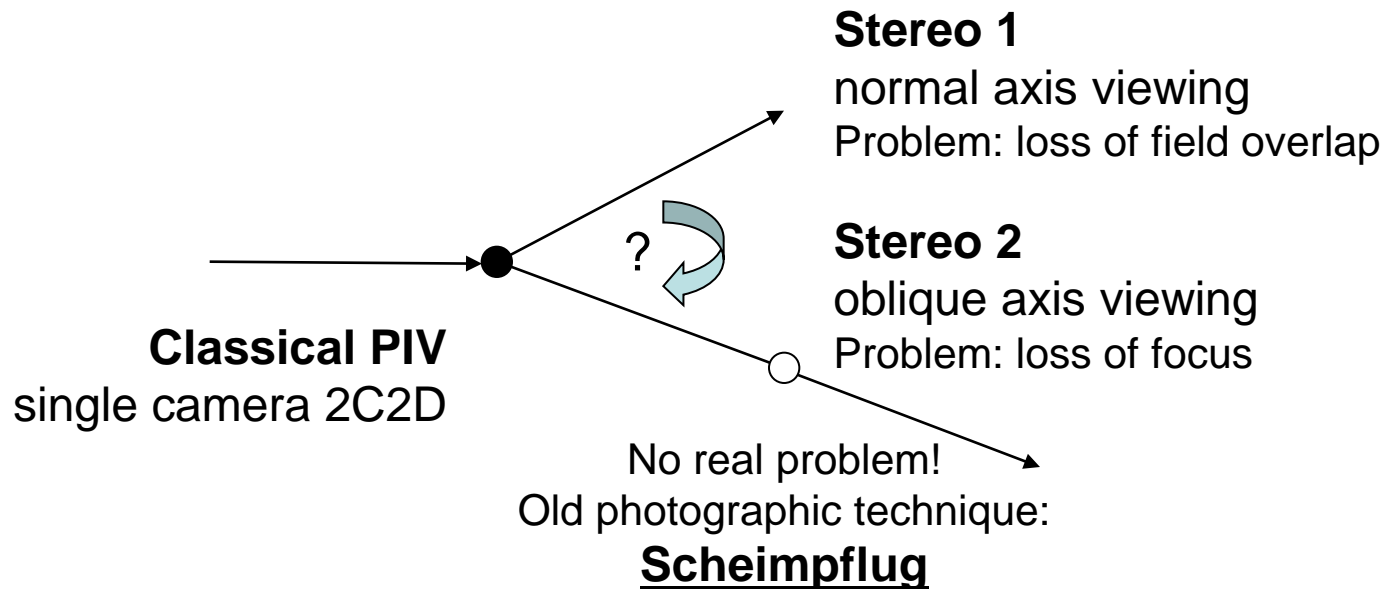
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## VERSION 2

Two (or more) new techniques substitute an old technique

The new methods each experience a history of their own (milestones...)

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# Turning points

## Summary from the questionnaire

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### Turning Points

Nd:YAG lasers (double oscillator)	1	1			1	1	1	1	1	1	7	
CCD sensors		1		1	1	1					4	
High speed PIV			1	1							2	
Digital photography	1		1	1					1		4	
Stereo PIV				1							1	
Tomo PIV				1		1					2	
Digital processing									1		1	
Gaussian peak fit		1									1	
Advanced interrogation			1								1	
Theoretical cross correlation improvements				1							1	
Application in wind tunnel				1							1	
Workshops					1						1	
Companies (TSI, Dantec, LaVision...)	1			1	1			1	1		5	
General appreciation of value of vector field presentation									1		1	
<b>Sum</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>6</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>5</b>	<b>1</b>

# List of MS/TP

- still to be completed -

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<b>Topic</b>	<b>Detail</b>	<b>MS or TP</b>	<b>Year</b>
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Lasers

Cameras

Computers

Digital image proc.

Algorithms

Digital PIV

Stereo

Micro

Holo

Tomo

General/Other

# List of MS/TP

- still to be completed -

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GO

**WIKI**