Breaststroke

www.usaswimming.org/webinars

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Breaststroke Tempo

- Fly – The smallest variance across athletes & within a race
- Breast – The largest variance within a race
- Effective breaststroke racing must have multiple gears
- Tempo up at the end of a race
- 60th cycle will produce less propulsion than 1st cycle…
  won't have the same speed to glide from…
  must make up for that with tempo
- Technique / DPS is the foundation, but don't be afraid of tempo

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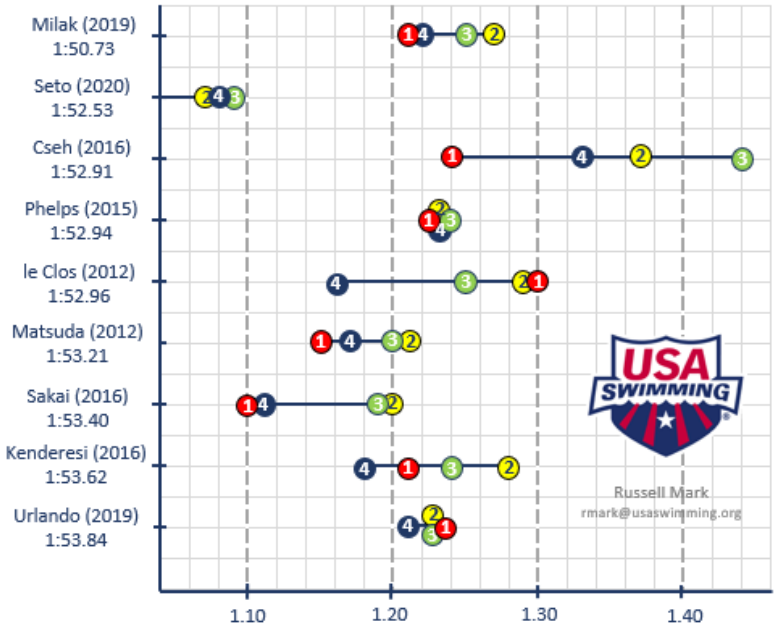
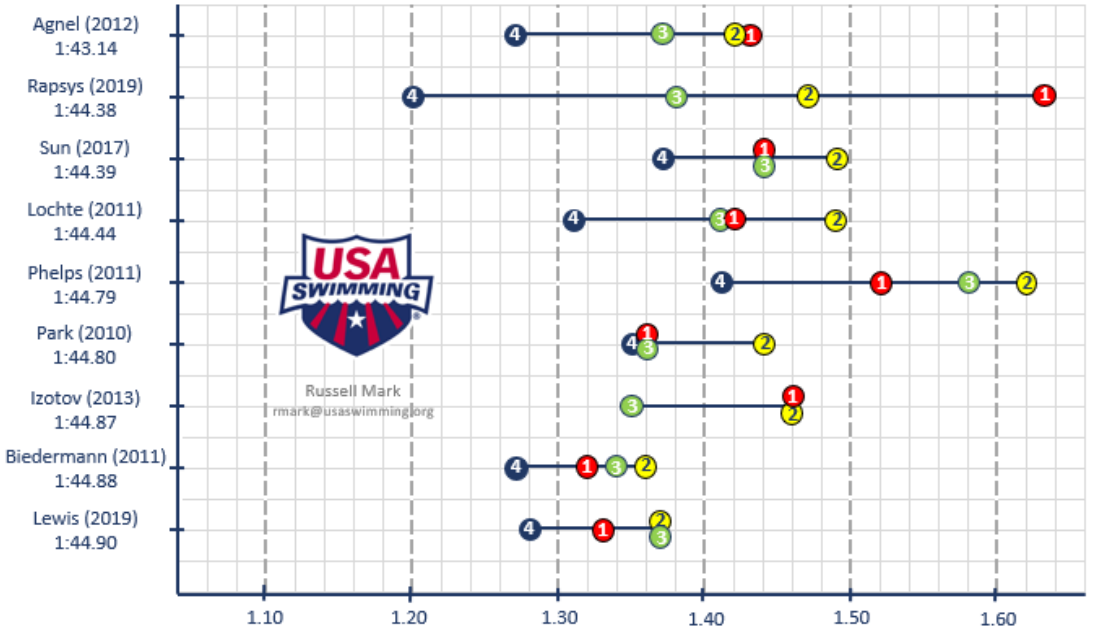
M 200 FL

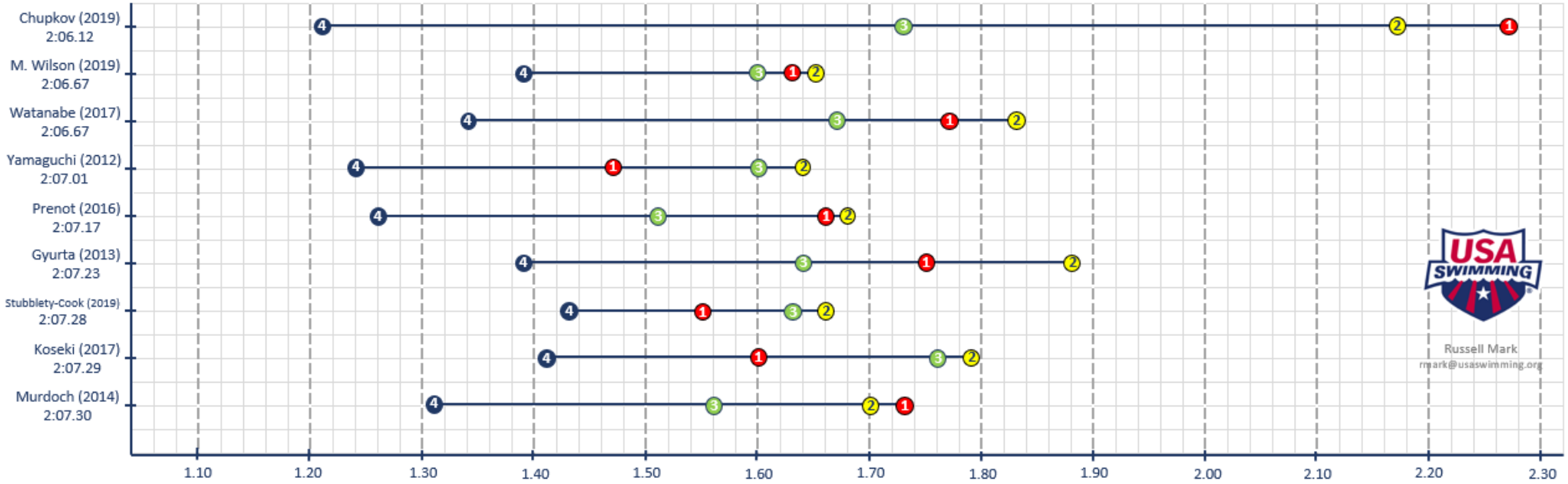
0.09





M 200 FR

0.16



M 200 BR – Avg Tempo Var. 0.46

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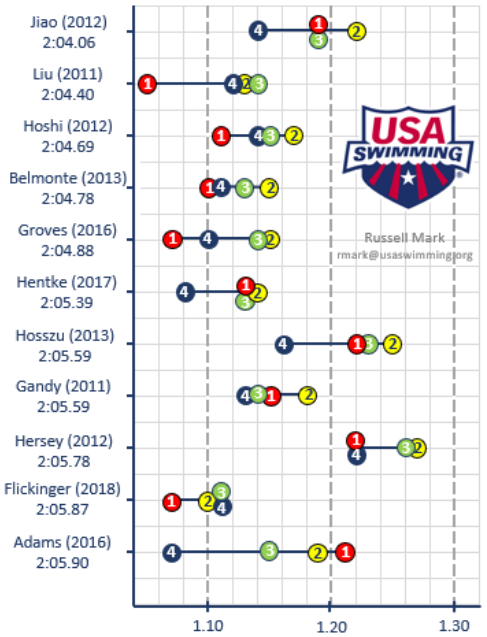
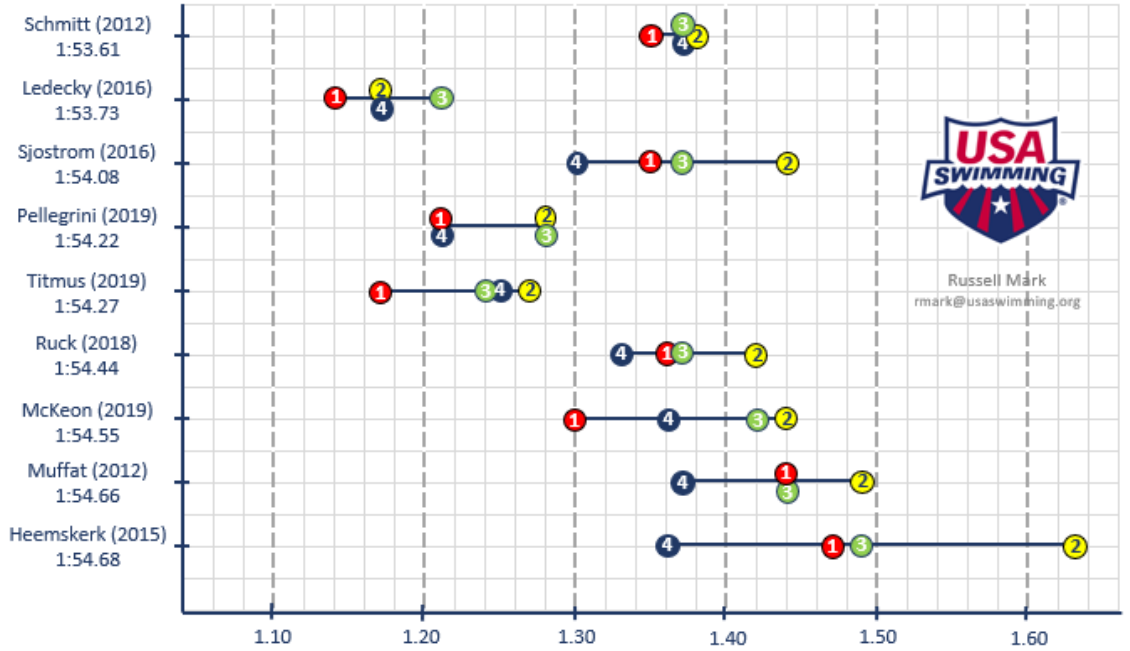
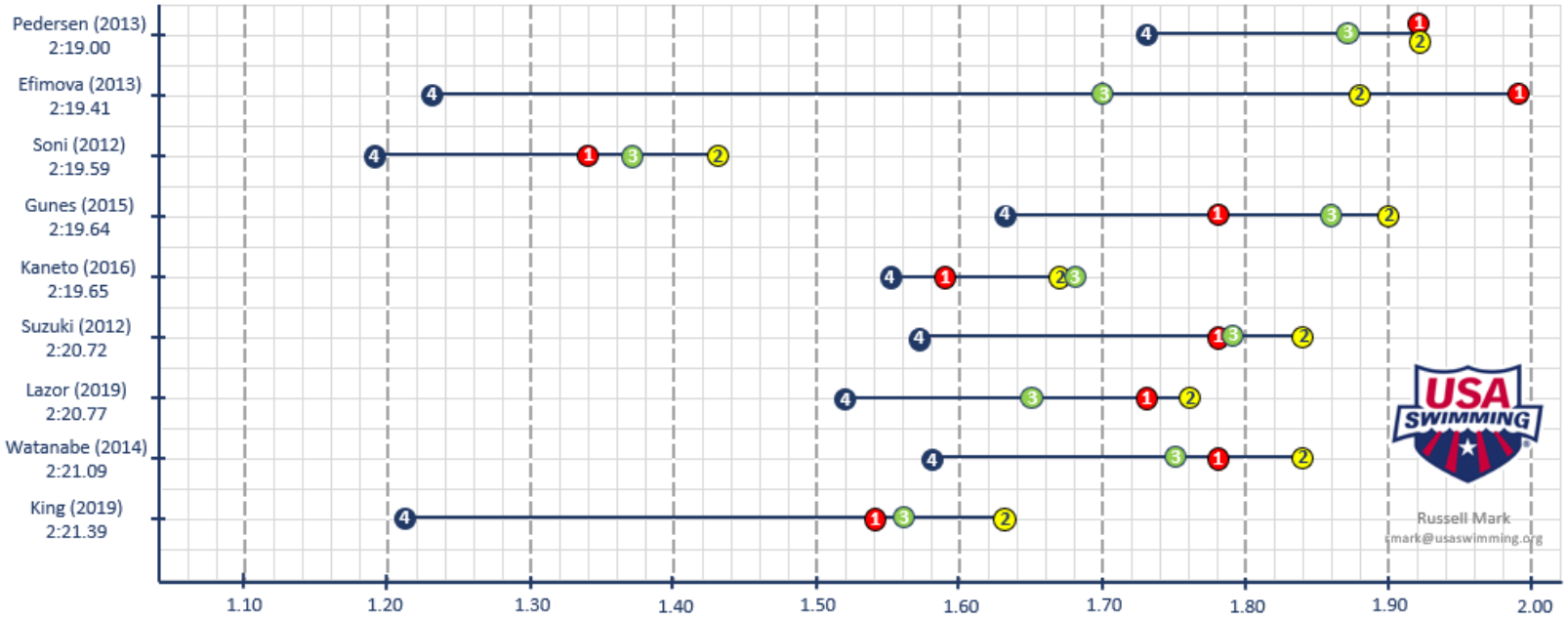
W 200 FL
0.08





W 200 FR
0.11



W 200 BR – Avg Tempo Var. 0.31

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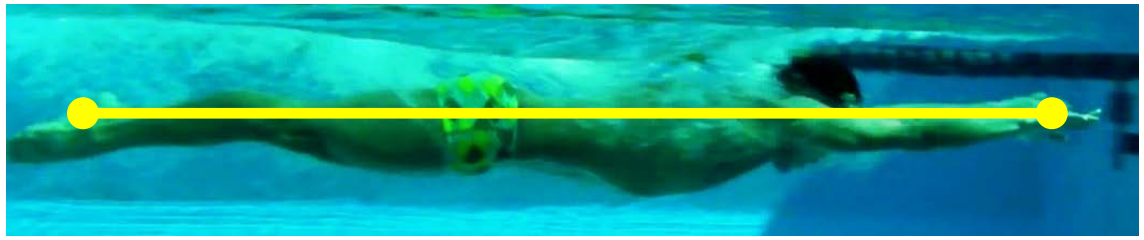
Breaststroke Technique Priorities



1) Great line in between strokes
   - o Head between arms
   - o Fingertips to toes just under the surface
   - o Face can be tilted forward

2) Attack forward
   - o Body & Arms
   - o Triangle of Space

3) Kick your hips high
   - o Legs extend slightly downward before getting into line

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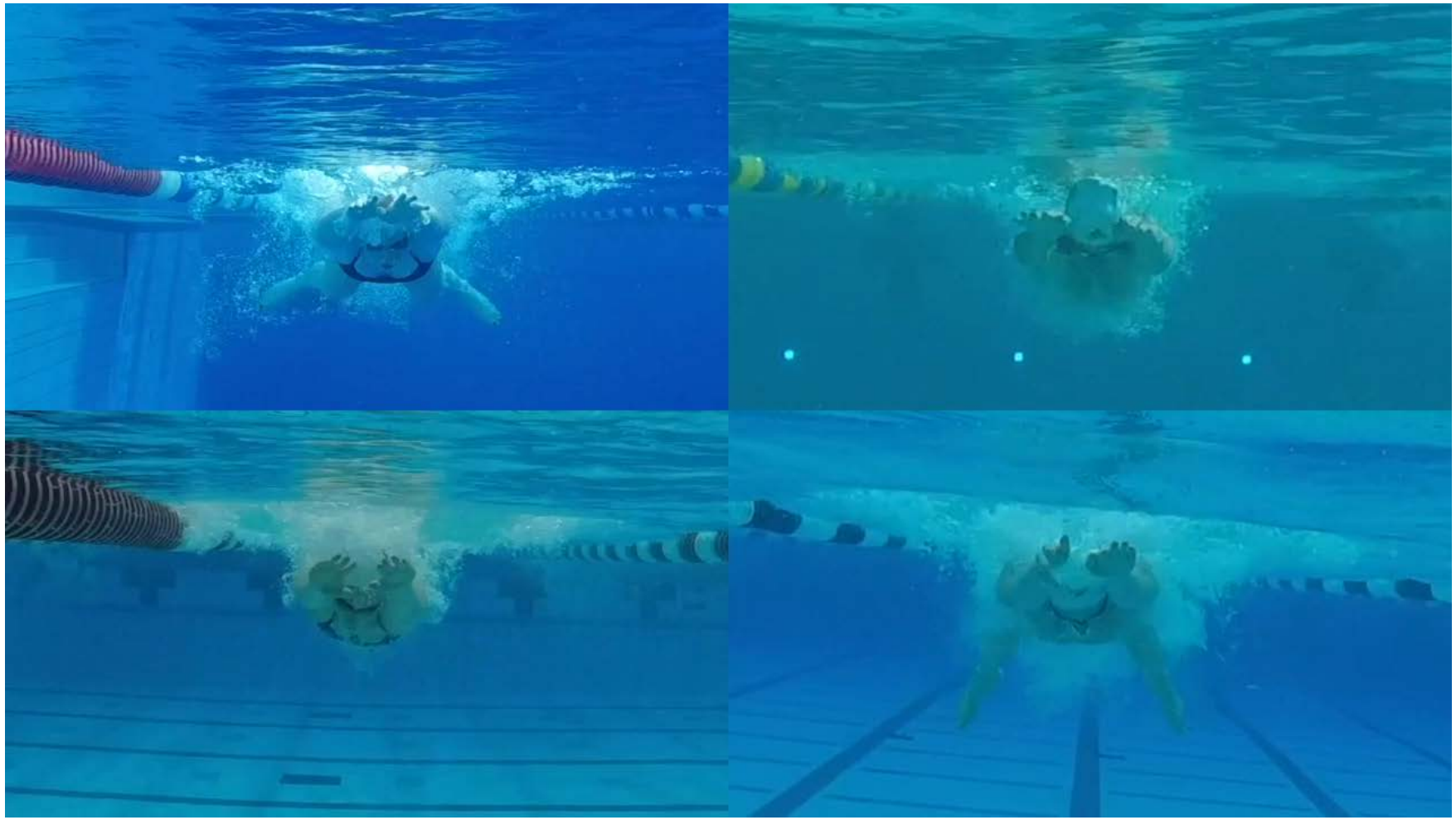
Pull Catch, Width, Breath Timing



- Trend towards more athletes with sharper and earlier catch (elbows up, fingers down)
- Pull water back while hands go wide
- Pull water back while hands pull inward & get depth
- Breathe during inward pull. Patience with the breath.

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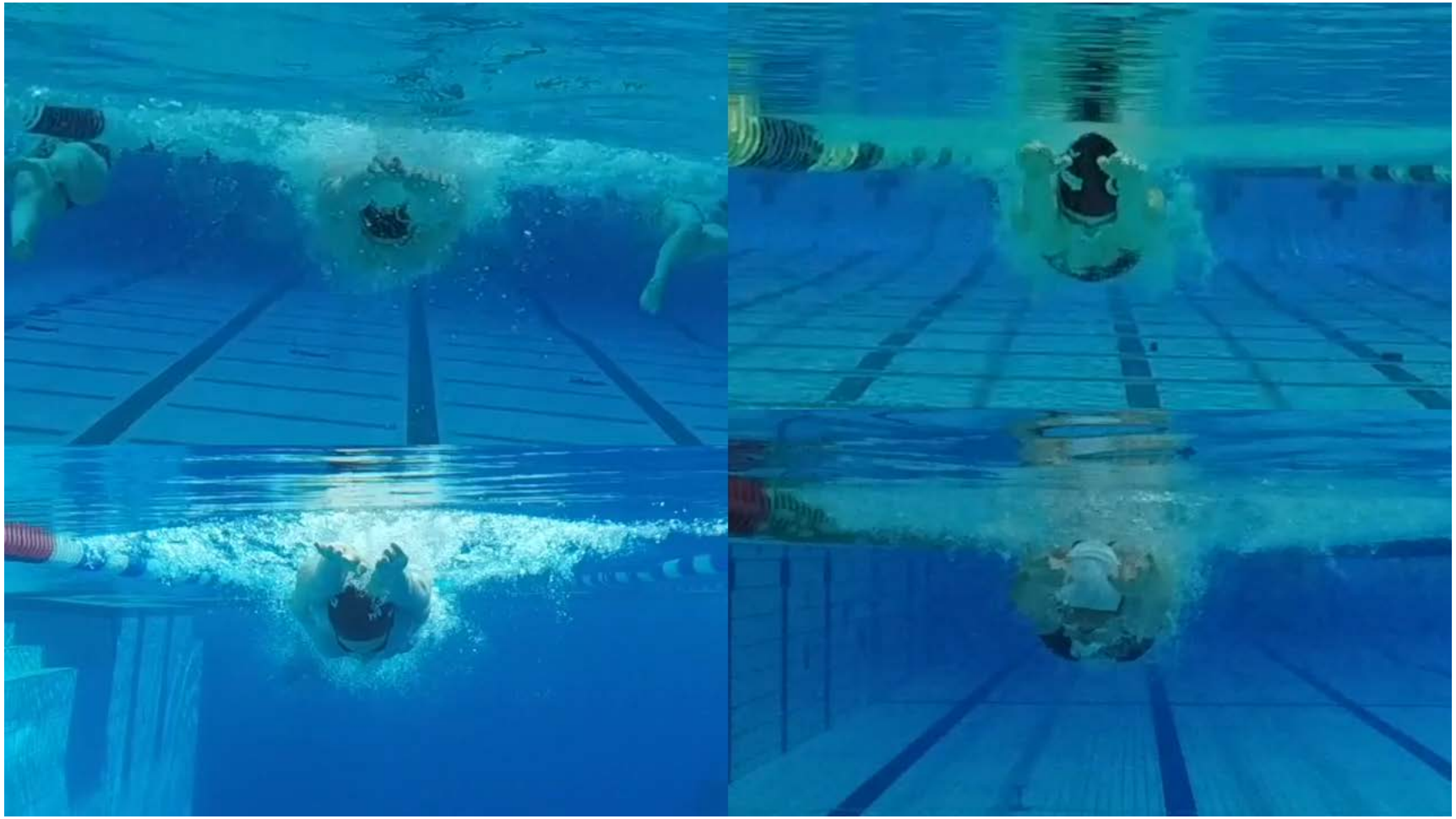
Pull Variations



- Still many breaststrokers with straighter outsweep
- Everything else the same:
- Patience with breath
- Deep hands on inward pull

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Pull Shape

- Hands make round shape
- No sharp corners
- Outward & Inward – pull water back
- Hands converge
- Elbows DO NOT
- Elbows can press next to the body and form a Triangle of Space
- Δ is where head/chest shoot into

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Body Line / High Hips

- Start and end each stroke in a great line
- Dynamic surge forward
- Hard to do without the Triangle of Space

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High Hips / Tail Wave

- Watch the wave at the lower back
- Turbulence that crashes together and sits at the hips = DRAG

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High Hips / Tail Wave

- Minimal wave & less turbulence:
  - Getting upper body in line
  - Great surge forward
  - Kick the hips high

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Kick Hips High

- From the peak setup of the kick/heels:
  - Legs extend at a downward angle
  - This applies maximum pressure against the water
  - Also gets the hips up
  - Then legs lift into line
  - The feet do not kick along the surface of the water
  - Will help swimmers that dive downward

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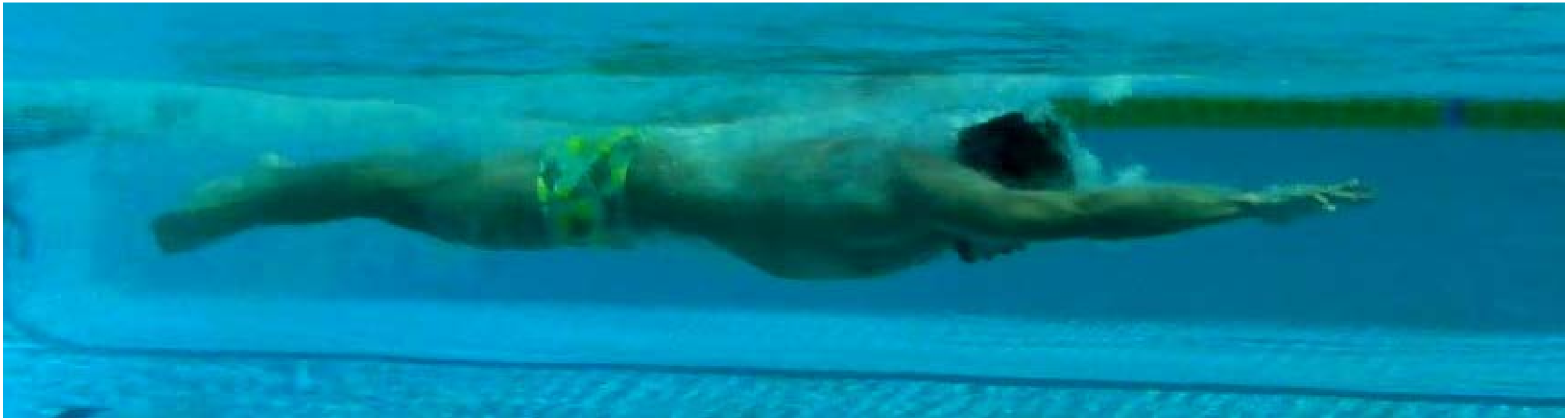
Timing



- Pull back – while the legs are in line
  - Heels start to lift as hands transition to recovery
- Kick back – while upper body is in line
  - FAST HEELS drawing the feet upward to setup the kick
  - Not necessarily kicking earlier

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Kick Timing & Kick Width

- Kick back while upper body is in line
- Knees wider than the hips, similar to shoulder width
- Feet should be in line or wider than knees

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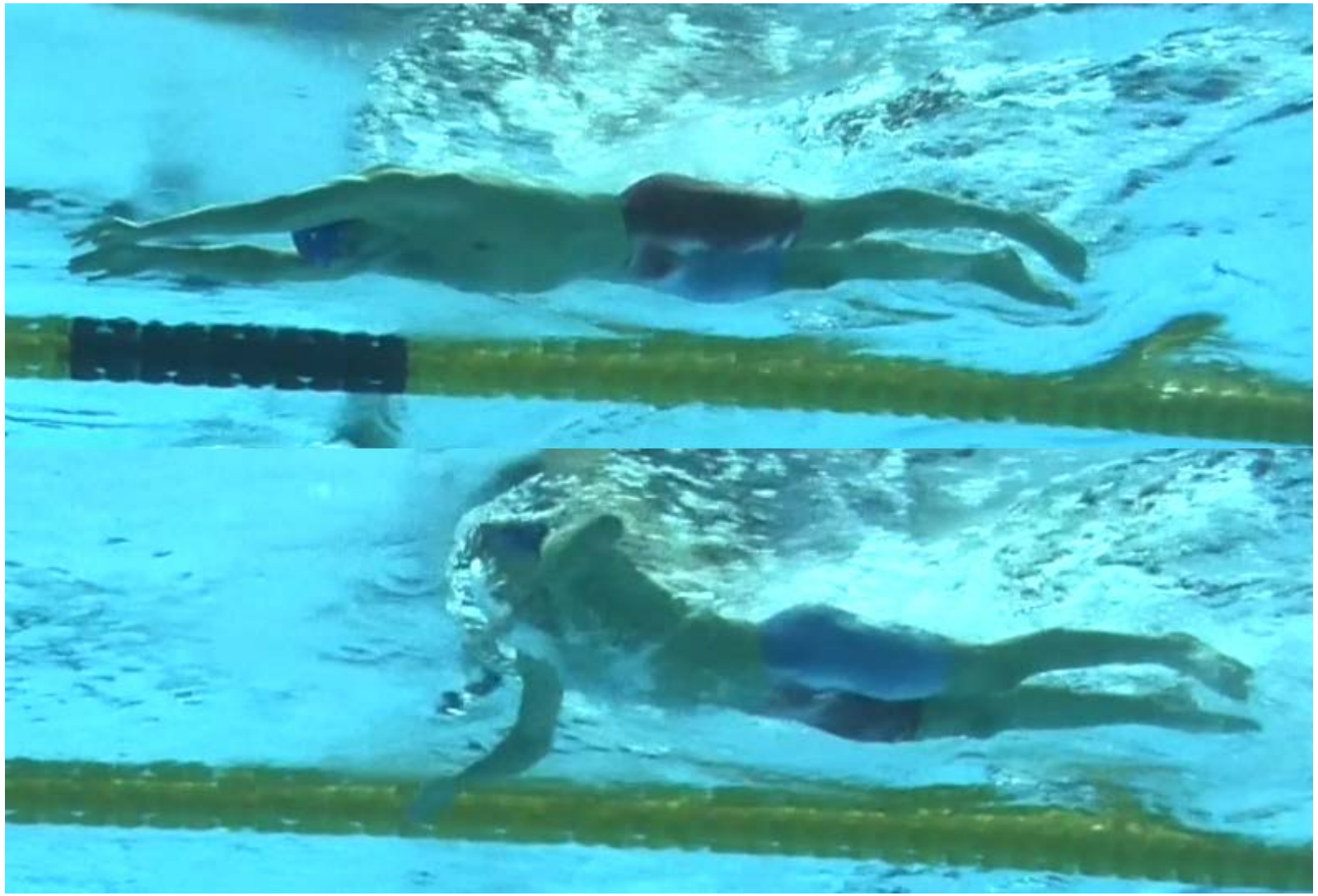
Tempo Mechanics



- Faster tempo means:
  - **Less glide**
  - Similar hand speed through the pull
  - **Feet come up slightly quicker** (not earlier)
  - Hands open up to next pull much earlier
  - Legs still finish the kick

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