

Capra's Changing Landscape

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Outline

- Where have we been?
- What are our achievements?
- Where are we now?
- Why are we here?
- Where are we going?
- How will we get there?

Actual talk?

- Historical perspective
- Major achievements
- How did we get where we are?
- Frequently asked questions
- Recent highlights and progress
- What's on the horizon?

Historical Perspective

- Ten years ago, less than 20 Capracons
 - All working on effectively the same thing
- Now there are more than 40 here
 - Come from diverse research areas
- Some are away, more are coming to join us
- Capra is coming of age & being recognized

Major Achievements!

- Regularization parameters for the self-force
- Understanding gauges, role of $\ell = 0, 1$ modes
- Identification of singular and regular fields
- Comparison with Post-Newtonian
- Transition from frequency to time domain
- Contributions with NR to EOB analysis

How will we get there?

- Many overlapping groups of individuals
- Sharing expertise, importing new ideas
- Having a modicum of organized planning
- Using different approaches and methods
- With infinite patience and understanding!

Recent advancements

- Automated computation for regularization
- Understanding Green's function properties
- Renewed contact with Numerical Relativity
- Advances with field theory methods
 - Role of singular + regular decomposition
- Confirmation with an element of rigor

FAQ: where is Steve?

- He doesn't like travel
 - This can be awkward
- He felt there was nothing (new) to say
- He has worked on his 2nd order formulation
- He has just sent a paper to the archive
- There should be some results by next year

What's on the horizon?

- Regularized fields (and parameters) in Kerr
- Direct comparison with numerical relativity
- Orbital evolution using self-force
- Second order and higher
- Driving force from field theory techniques
- Merging of evolution, two-time and kluge