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A review of «integer PPP» applications

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The possibility of fixing GNSS phase observations to integer values in PPP mode has been demonstrated by several authors. Various scientific and commercial services have started offering this option. In this presentation we first summarize the mathematical formalism needed to recover integer ambiguities while processing un-differenced GNSS phase observations. The improvements but also the limitations of “integer PPP” (IPPP) solutions are discussed. Then we make a review of several scientific results based on this method to illustrate its wide field of applications like oceanic buoy tracking, glacier deformation, atomic oscillator frequency transfer, LEO satellite orbit determination. Several ideas for future improvement are also discussed including the recommendation to IGS Analysis Centers to adopt a compatible approach to deliver “integer” clock products for a combined solution that would allow for IPPP solutions.