

UCL Department of Computer Science CS M038/GZ06: Mobile and Cloud Computing 2011–2012, Term 2 Kyle Jamieson and Brad Karp

One-pager: Interference Alignment and Cancellation (Gollakota et al., 2009) Due: 24 Feb 2012

Instructions: **in your own words,** answer the following question as **succinctly** as possible (in 200–500 words, but shorter answers within this range are encouraged). Quoting figures or text from the assigned reading or from any other source is categorically prohibited.

Part of the design of "Interference Alignment and Cancellation" (IAC) relies on an interference cancellation step similar to that described in GZ06 reading "Taking the Sting out of Carrier Sense" (Halperin et al.) When does and doesn't IAC rely on interference cancellation, and what determines whether IAC uses it or not? If IAC couldn't use interference cancellation, how many concurrent packets could it achieve in the scenarios shown in Figures 4, 5, and 6?