

Title (en)
COCHANNEL SIGNAL PROCESSING SYSTEM

Title (de)
GLEICHKANALSIGNALVERARBEITUNGSVORRICHTUNG

Title (fr)
SYSTEME DE TRAITEMENT DE SIGNAUX DANS LE MEME CANAL

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EP 0948847 A1 19991013 (EN)

Application
EP 96940872 A 19961126

Priority
US 9618867 W 19961126

Abstract (en)
[origin: WO9824192A1] A method and apparatus for processing cochannel signals received at a sensor array (110) in a cumulant-based signal processing and separation engine to obtain a desired set of output signals (38) or parameters. For use in a signal recovery system, the output signals are recovered and separated versions of the originally transmitted cochannel signals. An important feature that distinguishes the cumulant-based system from other signal separation and recovery systems is that it generates an estimated generalized steering vector associated with each signal source, and representative of all received coherent signal components attributable to the source. This feature enables the invention to perform well in multipath conditions, by combining all coherent multipath components from the same source. In a receiver/transmitter system (316), the estimated generalized steering vectors associated with each source are used to generate transmit beamformer weight vectors that permit cochannel transmission to multiple user stations (310). The basic cumulant-based processing and separation engine can also be used in a variety of applications, such as high density recording, complex phase angle equalization, receiving systems with enhanced effective dynamic range, and signal separation in the presence of strong interference. Various embodiments and extensions of the basic cumulant-based system are disclosed.

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CPC (source: EP)
H04B 7/086 (2013.01)

Citation (search report)
See references of WO 9824192A1

Citation (third parties)
Third party :

- US 5680142 A 19971021 - SMITH DAVID ANTHONY [GB], et al
- US 5771439 A 19980623 - KENNEDY JR JOSEPH PATRICK [US], et al

Cited by
CN110146842A; CN110412510A

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