

(19) World Intellectual Property Organization
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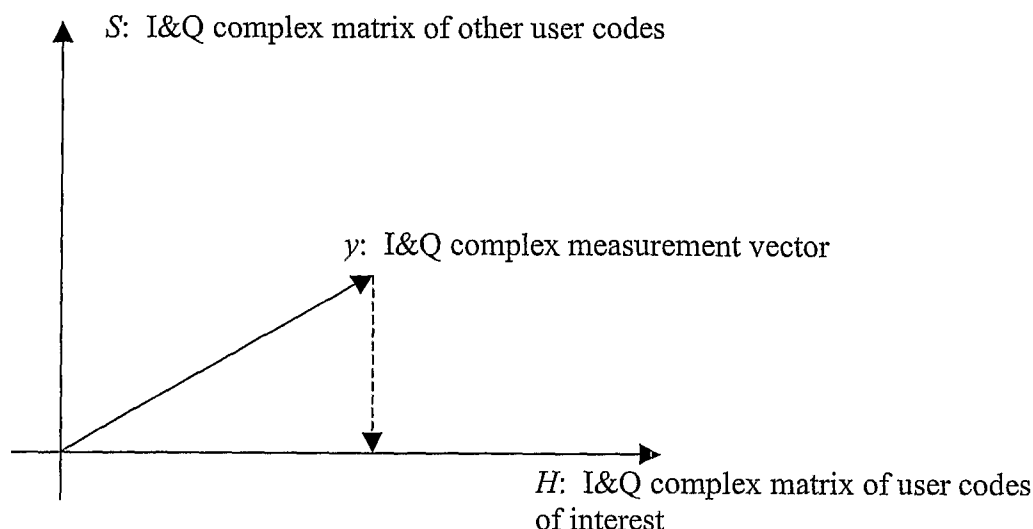
(43) International Publication Date
8 September 2006 (08.09.2006)

PCT

(10) International Publication Number
WO 2006/093723 A2

- (51) International Patent Classification: **Not classified**
- (21) International Application Number:
PCT/US2006/006094
- (22) International Filing Date:
21 February 2006 (21.02.2006)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/656,668 25 February 2005 (25.02.2005) US
- (71) Applicant (for all designated States except US): **DATA FUSION CORPORATION** [US/US]; 10109 Bannock Street, Suite #246, Northglenn, CO 80260 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **KOBER, Wolfgang** [US/US]; 7017 South Richfield, Aurora, CO 80016 (US). **KRUMVIEDA, Robert, Kent** [US/US]; 10713 Hobbit, Westminster, CO 80030 (US). **REYNOLDS, Lewis** [US/US]; 878 S. Grape St., Denver, CO 80246 (US). **KADLEC, Steven** [US/US]; 1125 Nottingham Street, Lafayette, CO 80026 (US).
- (74) Agents: **SWARTZ, Douglas W.** et al.; Sheridan Ross P.C., 1560 Broadway, Suite 1200, Denver, CO 80202-5141 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:**
— without international search report and to be republished upon receipt of that report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: MITIGATING INTERFERENCE IN A SIGNAL



(57) Abstract: A method and receiver are disclosed for mitigating or substantially canceling signal interference between signals detected at the receiver. Once a presumed interfering signal(s) is acquired, parameters are determined that allow the interferer(s) to be modeled. The phase invariance of the process eliminates the need to acquire the interferer's phase. An orthogonal projection (for projecting onto a detection subspace which is orthogonal to a subspace spanned by the interferer(s)) is applied to the composite of all signals (y) for thereby projecting y onto the detection subspace. The interference subspace is non-orthogonal to a representation of desired (but interfered) signal of the composite signals. With the receiver properly equipped to perform this projection operation, interfering signals, multipath, multipath-like, and structured jamming signals can be effectively diminished.

WO 2006/093723 A2