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June 30, 2008

Attorney Docket No.: 06618-637003/3220-C-C

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Presented for filing is a new continuation patent application of:

Applicant: HUI JIN, AAMOD KHANDEKAR AND ROBERT J. MCELIECE

Title: SERIAL CONCATENATION OF INTERLEAVED
CONVOLUTIONAL CODES FORMING TURBO-LIKE CODES

Assignee: California Institute of Technology

Enclosed are the following papers, including those required to receive a filing date under 37 C.F.R. § 1.53(b):

| | <u>Pages</u> |
|---------------|--------------|
| Specification | 17 |
| Claims | 5 |
| Abstract | 1 |
| Declaration | 4 |
| Drawings | 5 |

Enclosures:

- Form PTO-1449, listing documents cited in the parent applications (3 pages). Please confirm that these have been considered in this application by returning a copy of the Form PTO-1449 with the examiner's initials.
- Rule 63 declaration, copy from a previous application under rule 63(d) for continuation or divisional only.
- Small entity statement. See 37 CFR 1.27.

This application is entitled to small entity status.

This application is a continuation (and claims the benefit of priority under 35 U.S.C. § 120) of U.S. Application Serial No. 11/542,950, filed October 3, 2006, which is a continuation of U.S. Application Serial No. 09/861,102, filed May 18, 2001, now U.S. Patent No. 7,116,710, which claims the priority of U.S. Provisional Application Serial No. 60/205,095, filed May 18, 2000, and is a continuation-in-part of U.S. Application Serial No. 09/922,852, filed August 18, 2000, now U.S. Patent No.

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Page 2

7,089,477. The disclosure of the prior applications are considered part of (and are incorporated by reference in) the disclosure of this application.

| | <u>Small Entity</u> | <u>Large Entity</u> | |
|---|-------------------------|-------------------------|-------|
| Basic Filing Fee | 75 | 310 | \$75 |
| Search Fee | 255 | 510 | \$255 |
| Examination fee | 105 | 210 | \$105 |
| Total Claims 23 over 20 | 3 x \$25 | 25 50 | \$75 |
| Independent Claims 3 over 3 | 0 x \$105 | 105 210 | \$0 |
| Fee for Multiple Dependent claims | 185 | 370 | \$0 |
| Fee for each additional 50 pages of Specification and Drawings over 100 | 130 | 260 | \$0 |
| Total Filing fee | | | \$510 |

The filing fee in the amount of \$510 is being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account authorization. Please apply all charges or credits to Deposit Account No. 06-1050, referencing Attorney Docket No. 06618-637003.

If this application is found to be incomplete, or if a telephone conference would otherwise be helpful, please call the undersigned at (858) 678-5070.

Please direct all correspondence to the following:

20985

PTO Customer Number

Respectfully submitted,

/John F. Conroy, Reg. # 45,485/

John F. Conroy
Reg. No. 45,485
Enclosures
JFC/jhp

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|--|--|--|--|
| Substitute Form PTO-1449 (Modified) Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b)) | U.S. Department of Commerce Patent and Trademark Office | Attorney's Docket No. 06618-637003 | Application No. Not yet assigned |
| | Applicant Hui Jin et al. | | |
| | Filing Date June 30, 2008 | Group Art Unit | |

| U.S. Patent Documents | | | | | | | |
|-----------------------|-----------|-----------------|------------------|--------------------|-------|----------|----------------------------|
| Examiner Initial | Desig. ID | Document Number | Publication Date | Patentee | Class | Subclass | Filing Date If Appropriate |
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| Foreign Patent Documents or Published Foreign Patent Applications | | | | | | | | |
|---|-----------|-----------------|------------------|--------------------------|-------|----------|-------------|----|
| Examiner Initial | Desig. ID | Document Number | Publication Date | Country or Patent Office | Class | Subclass | Translation | |
| | | | | | | | Yes | No |
| | AP | | | | | | | |
| | AQ | | | | | | | |
| | AR | | | | | | | |

| Other Documents (include Author, Title, Date, and Place of Publication) | | |
|---|-----------|---|
| Examiner Initial | Desig. ID | Document |
| | AS | Benedetto, S., et al., "A Soft-Input Soft-Output APP Module for Iterative Decoding of Concatenated Codes," <i>IEEE Communications Letters</i> , 1(1):22-24, January 1997. |
| | AT | Benedetto, S., et al., "A Soft-Input Soft-Output Maximum A Posteriori (MAP) Module to Decode Parallel and Serial Concatenated Codes," <i>The Telecommunications and Data Acquisition Progress Report (TDA PR 42-127)</i> , pp. 1-20, November 1996. |

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| Examiner Signature | Date Considered |
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EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute Disclosure Form (PTO-1449)

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| Substitute Form PTO-1449 (Modified) | U.S. Department of Commerce Patent and Trademark Office | Attorney's Docket No. 06618-637003 | Application No. Not yet assigned |
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| | | Filing Date June 30, 2008 | Group Art Unit |
| (37 CFR §1.98(b)) | | | |

| Other Documents (include Author, Title, Date, and Place of Publication) | | |
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| | AU | Benedetto, S., et al., "Bandwidth efficient parallel concatenated coding schemes," <i>Electronics Letters</i> , 31(24):2067-2069, November 1995. |
| | AV | Benedetto, S., et al., "Design of Serially Concatenated Interleaved Codes," <i>ICC 97</i> , vol. 2, pp. 710-714, June 1997. |
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| | | Filing Date June 30, 2008 | Group Art Unit |

| Other Documents (include Author, Title, Date, and Place of Publication) | | |
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| Examiner Initial | Desig. ID | Document |
| | BM | Jin, H., et al., "Irregular Repeat - Accumulate Codes," <i>2nd International Symposium on Turbo Codes</i> , Brest, France, 25 pages, September 2000. |
| | BN | Jin, H., et al., "Irregular Repeat - Accumulate Codes," <i>2nd International Symposium on Turbo Codes & Related Topics</i> , Brest, France, pg. 1-8, September 2000. |
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