

J. R. Ruberson, Univ. Georgia, CPES, P.O. Box 748, Tifton, GA 31793.

- 10:48 0546 Beet armyworm damage of cotton plants triggers *de novo* biosynthesis of parasitoid attractants. P. W. Paré, J. H. Tumlinson, and U.S.R. Röse, USDA-ARS, P.O. Box 14565, 1700 SW 23rd Dr., Gainesville, FL 32604.
- 11:00 0547 Factor from beet armyworm oral secretion that induces plants to release parasitoid attractants. H. Alborn and J. H. Tumlinson, USDA-ARS, P.O. Box 14565, 1700 SW 23rd Dr., Gainesville, FL 32604; T. Jones, Dept. Chem., VMI, Lexington, VA 24450; T.C.J. Turlings, Dept. Zool., Univ. Neuchâtel, Rue Emile-Argand 11, CH-2007 Neuchâtel, Switzerland.
- 11:12 0548 Insect-plant signals that induce plant-insect signals. J. H. Tumlinson, H. Alborn, and P. W. Paré, USDA-ARS, P.O. Box 14565, 1700 SW 23rd Dr., Gainesville, FL 32604; T. Jones, Dept. Chem., VMI, Lexington, VA 24450; W. J. Lewis, USDA-ARS, P.O. Box 748, Tifton, GA 31793.

Submitted Papers, Section C, Subsection Cd:
Behavior and Ecology

Breathitt Room

Moderators:

J. H. Borden, Cent. Pest Mgmt, Dept. Biol. Sci., Simon Fraser Univ., Burnaby, B.C. V5A 1S6 Canada; J. L. Todd, Dept. Entomol., Iowa State Univ., 411 Sci. II Bldg., Ames, IA 50011

- 8:00 0549 Frequency of pulse interception determines moth flight maneuvers in intermittent plumes at different wind speeds. A. Mafrá-Neto and R. T. Cardé, Dept. Entomol., Univ. California, Riverside, CA 92521.
- 8:12 0550 Role of olfaction in host plant location by the crucifer specialist, *Plutella xylostella*. R. L. Abernathy, ARL Div. Neurobiol., Gould-Simpson 611, Univ. Arizona, Tucson, AZ 85721; E. A. Bernays, Dept. Entomol., Forbes 410, Univ. Arizona, Tucson, AZ 85721; R. F. Chapman, ARL Div. Neurobiol., Gould-Simpson 611, Univ. Arizona, Tucson, AZ 85721.

- 8:24 0551 Orientation by olfaction: Upwind flight of *Manduca sexta* females. W. L. Mechaber, M. A. Willis, and J. G. Hildebrand, ARL Div. Neurobiol., Gould-Simpson Bldg., Univ. Arizona, Tucson, AZ 85721.
- 8:36 0552 Ovipositional attractiveness of soybean looper moths to cotton and soybean using an air flow olfactometer. D. J. Jost and H. N. Pitre, Dept. Entomol. & Plant Pathol., Mississippi State Univ., 103 Clay Lyle, Mississippi State, MS 39762.
- 8:48 0553 Strategies by which parasitoids unravel multiple chemical signals for host location. A. M. Cortesero and J. O. Stapel, USDA-ARS, IBPMRL, P.O. Box 748, Tifton, GA 31793; J. H. Tumlinson, USDA-ARS, CMAVE, 1700 SW 23rd Dr., Gainesville, FL 32604; W. J. Lewis, USDA-ARS, IBPMRL, P.O. Box 748, Tifton, GA 31793.
- 9:00 0554 Systemic release and specificity of volatile attractants for parasitic wasps by undamaged leaves of caterpillar damaged cotton plants. U.S.R. Rose, USDA-ARS, CMAVE, 1700 SW 23rd Dr., Gainesville, FL 32604; J. W. Lewis, USDA-ARS, IBPMRL, P.O. Box 748, Tifton, GA 31793; J. H. Tumlinson, USDA-ARS, CMAVE, 1700 SW 23rd Dr., Gainesville, FL 32604.
- 9:12 0555 Lobloily pine volatiles attractive to bark and ambrosia beetles (Coleoptera: Scolytidae). C.A.H. Flechtmann and C. W. Berisford, Entomol. Dept., Univ. Georgia, 413 Biol. Sci. Bldg., Athens, GA 30602.
- 9:24 0556 Aspen bark volatiles as repellents for the mountain pine beetle. J. H. Borden, Dept. Biol. Sci., Cent. Pest Mgmt., Simon Fraser Univ., Burnaby B.C., V5A 1S6 Canada; I. M. Wilson, Phero Tech Inc., 7572 Progress Way, R.R. #5, Delta, B.C., V4G 1E9 Canada; L. J. Chong and G. Gries, Dept. Biol. Sci., Cent. Pest Mgmt., Simon Fraser Univ., Burnaby, B.C., V5A 1S6 Canada.
- 9:36 0557 Increase in trap catches in a longhorn beetle by a combination of sex pheromones and a floral attractant. K. Nakamuta, M. Tokoro, and T. Nakashima, For. & For. Prod. Res. Inst., P.O. Box 16, Tsukuba Norin Kenkyu Danchi-nai, Tsukuba 305, Japan; W. S. Leal, Natl. Inst. Sericult. & Entomol. Sci.,